



# WORLD NEWS

EUROPE

RUSSIAN ECONOMY DEPUTY PREMIER WILL PRESS HARD FOR 'ARGENTINE MODEL' OF MONETARY POLICY TO RESTORE CONFIDENCE IN ROUBLE

## Fyodorov says Moscow should adopt currency board

By John Thornhill and Stephen Fidler in Moscow

Boris Fyodorov, Russia's acting deputy prime minister in charge of economic policy, said yesterday the country now faced a clear choice between renewed inflation or tougher reform in attempting to tackle its deepening financial crisis.

But in the strongest indication to date of the future government's economic thinking, Mr Fyodorov said

he would press hard for Russia to follow the "Argentine model" of recovery, instituting a currency board to restore confidence in monetary policy and suppress inflation and overhauling the tax regime.

"Runaway inflation never led any country to prosperity," he said. "In my view the Argentinean model, with certain modifications, is the only radical way out of the free fall."

A currency board takes

control of monetary policy out of the hands of government and automatically sets interest rates according to the level of foreign currency reserves it holds at a fixed exchange rate.

Mr Fyodorov conceded that at present everything depended on the Duma, the lower house of parliament, approving Victor Chernomyrdin as prime minister and allowing a new government to be formed. But three of the four biggest parlia-

mentary parties seem likely to oppose Mr Chernomyrdin when they discuss his candidacy for the second time on Friday.

In the meantime, the ruble has continued to plummet, falling to 12.18 to the dollar yesterday on Moscow's small electronic exchange. At the beginning of the year, the ruble stood at 6.04.

Mr Fyodorov said the paralysis of the banking system had undermined the

government's tax collection efforts in August. Federal revenues fell to \$11.12bn in the month, \$1.2bn short of expectations. The pressure on public finances may intensify this month after the International Monetary Fund indicated it might delay disbursement of the next \$4.5bn tranche of its support loan until mid-October or even later.

One western official said no additional financial support would be forthcoming

until a government was in place with clear policy commitments. "The international financial community just has no magic solutions for them. The situation is getting a lot worse and the measures they need to take are becoming much tougher," he said.

But Boris Berezovsky, a Kremlin adviser and self-styled "oligarch", said the west would again help Russia when the new government relaunched reforms.

"In that case, it is absolutely clear that we will get support from the west, both moral and financial."

The pressure on the Russian government's finances increases the likelihood that the central bank will have to print money to cover budget shortfalls.

The Duma yesterday passed a motion calling for the removal of Sergei Dubinin, the head of the central bank. The criticisms were echoed by Mr Fyodorov, who

said the central bank had first allowed Russian banks to acquire massive exposures to the forward dollar market and then failed to restructure banks to cope with the consequences.

"For instance, 75 per cent of the shares are taken from SBS-Agro (the biggest commercial savings bank) as a security for a credit but then it turns out that SBS-Agro is nothing more than a sign board and debts, with no property," Mr Fyodorov said.

## 'Much blood, sweat and tears'

This is a partial transcript of the press conference held by President Yeltsin and President Clinton yesterday.

Yeltsin: "Russia rejects the use of power methods as a matter of principle. Conflicts of today have no military solution, be it in Kosovo, or around Iraq or Afghanistan or elsewhere."

"We shall have to sweat through much blood, sweat and tears before new forms of co-operation between our two great powers are found - reforms that would be able to withstand volatile circumstances."

Clinton: "I reaffirmed America's strong view that Russia can move beyond today's crisis and create growth and

good jobs, but only if it carries forward with its transformation, with a strong and fair tax system, greater rule of law, dealing forthrightly with financial institutions, having regulation that protects against abuses, and, yes, developing an appropriate safety net for people who are hurt during times of change."

"In recent months, Russia has taken important steps to tighten its export controls on weapons of mass destruction and the missiles to deliver them, and to penalise offenders. This week, Russia barred three companies from transactions with Iran. Today we agreed to intensify our co-operation by creating seven working groups on export controls."

Yeltsin: "Naturally, we face problems basically of our own. We have not been able to do many things, and need to conclude our reforms, to bring them to completion, and consequently to get results."

"We are not saying we count solely on support from outside. No. What we need from the US is political support to the effect that the US is in favour of reforms in Russia. Certainly, we ought to fight our spending patterns and mismanagement."

Clinton: "If other political forces in Russia try to force the president to abandon reform in mid-stream or even reverse it, what I think will happen is even less money will come into Rus-

sia, and even more economic hardship will result. That does not mean you should not have a social safety net."

Yeltsin: "We're not running away from the position that we are against NATO expanding eastward."

"We believe this is a blunder, a big mistake, and one day this will be a historic error. Therefore, at this point in time, what we would like to do is to improve relations so there is no confrontation."

Clinton: "The expansion of NATO should be seen primarily as nations interested in working together to deal with common security problems, not to be ready to repel expected invasions."



Bill Clinton and Boris Yeltsin exchange smiles during their press conference at the Kremlin yesterday

GERMAN BANKS DRESDNER REVEALS LOSSES □ MOODY'S CUTS WESTLB RATING OUTLOOK

## New worries over risks of Russian exposure

By Graham Bowley in Frankfurt

Concern about German banks' Russia exposure deepened yesterday when a large commercial bank revealed the extent of its losses for the first time and Moody's, the ratings agency, expressed worries about the country's biggest public sector bank.

Moody's cut its outlook for the financial strength rating of Westdeutsche Landesbank from stable to negative.

The move is likely to switch the spotlight from Germany's big commercial banks to the country's large public sector banks, which are backed by the German state. WestLB, which has so far given no public details of its exposure to Russia, is viewed as the most risky of the public sector banks because of its aggressive

Rating agency warns of 'ripple effect of credit crises' on banks

Moody's warned yesterday of a "ripple effect of credit crises" which could hit European banks in their domestic markets even though, for most of them, direct exposure to Russia did not pose a significant risk, writes Clay Harris, Banking Correspondent.

But, said the agency,

international expansion. It could heighten worries that the German state is heavily exposed to the turmoil in Russia because a high proportion of commercial bank lending is also guaranteed by the government.

Separately, Dresdner Bank, one of Germany's "big four" private sector banks,

Russian exposure, "added to their existing burden of distressed east Asia credit," would put further strain on some banks. "The effect should become more significant if credit-risk contagion turned out to be more extensive".

Moody's said it could not exclude a higher level of

provisioning for Russia than had already been announced by European banks. Banks' asset quality was most likely to be hurt by credits to Russia. Losses on investments in securities such as GKO's "could reach 80-90 per cent, or more."

So far, Moody's has put on review for possible

downgrading the financial strength ratings of Credit Suisse First Boston, Credit Agricole Indosuez and Bank Austria. It has also placed a negative outlook on the financial strength rating of Westdeutsche Landesbank and the deposit and financial strength ratings of Raiffeisen Zentralbank Oesterreich.

Russian borrowers. WestLB has significant emerging market debt trading operations, although analysts said it was more exposed to Latin American countries than Russia.

Last week Deutsche Bank, Germany's largest private sector bank, was stripped of its triple A credit rating by Standard & Poor's amid wor-

ries about Russia and Asia.

All the big commercial banks have now presented details of their exposures and provisions to Russian borrowing. However, Deutsche Bank has said it is considering raising its provisions because of the deteriorating situation. It is believed to have already set aside provisions covering around 50 per cent of its DM1.5bn net lending exposure to Russia.

Moody's made it clear that WestLB's debt and deposit ratings would remain unchanged - because of the bank's state guarantee.

Deutsche Bank has said that its exposure to the GKO market was hedged. But there is growing uncertainty about such hedging instruments since in many cases the counterparties were Russian banks.

## Germany 'on brink of deflation'

By Frederick Stilleman in Berlin

Germany is teetering on the brink of deflation because of the Asian and Russian crises and depressed domestic demand, according to Heiner Flassbeck, chief economist at the German Institute of Economic Research (DIW). Mr Flassbeck is also an adviser to Oskar Lafontaine, finance spokesman for the opposition Social Democrats.

The DIW says Germany's August 0.7 per cent year-on-year rise in prices is deceptive as it is padded by a rise in VAT. The "real" rise is more likely to be around 0.2 per cent. When the tendency of official statistics to overstate price rises by around three quarters of a point is taken into account, Germany is "already in the negative area".

The DIW blames falling nominal wages for poor domestic demand and is calling for an immediate interest rate cut. Mr Flassbeck accused the Bundesbank, the central bank, of being quick to react to signs of inflation but slow to recognise the threat of deflation.

Mr Flassbeck said "a beggar-my-neighbour wave of devaluations" on Germany's eastern borders would significantly hurt Europe's biggest economy, as 10 per cent of German exports went to central and eastern Europe.

Mr Flassbeck warned that Germany might bring a deflationary situation into the European single currency, the euro, when it was launched in January. He called for the European Central Bank to set low interest rates and for more co-ordination among member states.

GERMAN ELECTION PROMISE DESIGNED TO WRONG-FOOT OPPOSITION SPD AT START OF TWO-DAY PARLIAMENTARY DEBATE

## Waigel pledges DM10bn tax cuts

By Peter Norman in Bonn

Theo Waigel, Germany's finance minister, yesterday promised business and personal tax payers "significant" net tax cuts totalling DM10bn (\$5.7bn) from the start of next year, if Chancellor Helmut Kohl's coalition government wins this month's general election.

In a move designed to wrong-foot the opposition Social Democratic party at the opening of a two-day parliamentary debate, Mr Waigel proposed lower tax rates broadly matching those in the SPD's election manifesto, but as a first step to a bigger tax reform.

With just over three weeks to the September 27 election, the chancellor's centre-right

coalition continues to lag behind a putative coalition of the SPD and the environmental Green party in opinion polls.

Mr Waigel, showing the same optimism about the election outcome as Mr Kohl, said the government, once re-elected, would legislate to cut the bottom income tax rate to about 20 per cent from 25.9 per cent and the top income tax rate to 47.48 per cent from 53 per cent, on January 1, 1999. He pledged to cut the top tax on business income as well as the corporation tax rate on retained earnings to 40 per cent from 47 per cent, bringing German business taxes nearer the international norm. Corporation tax on distributed profits would

fall to 28 from 30 per cent. Mr Waigel disclosed the tax plans in parliament while introducing the 1999 federal budget, which proposes to boost federal spending by just 0.4 per cent to DM465.3bn next year.

The lower tax rates would make Germany more competitive as a business base in the euro area and increase incentives to work, he said. They would reduce revenues by a gross DM20bn next year, but the government would claw back DM10bn by closing tax loopholes, so broadening the tax base.

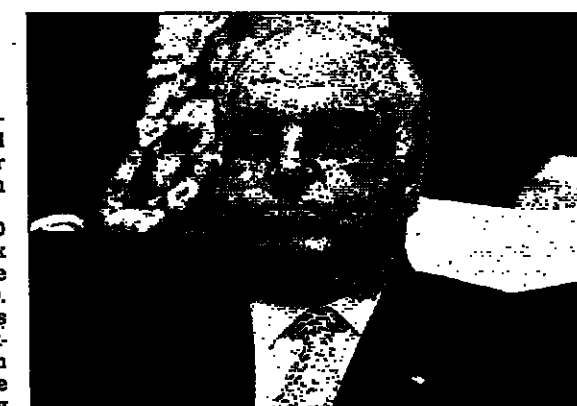
The re-elected government would introduce the tax legislation for 1999 with wider ranging reform plans for 2000. German income taxes would then range from 15

per cent to 39 per cent. Business incomes would be taxed at 35 per cent with a 25 per cent corporation tax rate on distributed earnings.

Oskar Lafontaine, SPD leader, admitted the tax rates planned for 1999 were close to those of the SPD. But he said the SPD plans would benefit ordinary working families and strengthen domestic demand. He accused Mr Waigel of failing to say how he would finance his planned cuts.

The government's 1999 draft federal budget came in for criticism from Oswald Metzger, a Green budget spokesman who had the rare distinction of being praised by Mr Kohl in a newspaper interview last week.

Warning of problems if



Chancellor Helmut Kohl watches yesterday's debate

Reuters

growth slowed to less than 2.5 per cent, Mr Metzger accused Mr Waigel of delaying debt repayments and building up huge future liabilities by committing the federal government to paying the pensions of thousands of postal workers.

Mr Waigel said Germany could afford the planned tax cuts without breaking the Maastricht Treaty limits on new borrowing or the "golden rule" in its constitution that says new federal borrowing must not exceed investment.

SINGLE CURRENCY 'CLEAR BENEFITS' SEEN

## Euro-zone: an oasis of calm

By Richard Adams, Economics Staff

As the world's currency markets have gyrated up and down in recent weeks, there has been an oasis of comparative calm: the 11 members of the European single currency.

Shielded by the approach of the third stage of European economic and monetary union (Emu) in January, the euro-zone currencies have been protected from the economic turmoil buffeting foreign exchanges. But countries such as Canada and Australia have seen their currencies weaken to the lowest levels ever against the US dollar.

"There are now clear benefits coming from being in the single currency system," said David Bloom, currency analyst at HSBC investment bank in London. "For smaller economies, like Portugal and Spain, it has given them a financial stability they wouldn't have had otherwise."

One example has been the contrast in fortunes between Norway, outside the European Union, and Finland, a full member of the single currency. Norway's central bank last month raised interest rates to support the krona, without success, after falling oil prices depressed the currency. Aggressive selling by overseas investors forced the central bank to abandon its exchange rate target last week.

Next door, the Finnish marka has been relatively unscathed, despite sharing its longest border with politically unstable Russia. Finland is a substantial com-

modity exporter, sending 7 per cent of its exports to Russia, and 13 per cent to Asia, the highest proportion in Emu.

"Looking back through history in both bond and currency terms, Italy and Spain would have been hammered by current events," Mr Bloom said. The Emu crisis of 1993 caused the peseta and lira to depreciate sharply against the D-Mark. Had similar volatility occurred two years ago, "peripheral" Emu members such as Italy or Spain might have fared differently. "The market would have singled those countries out for a test," said Paul Meggyesi, head of currency strategy at Deutsche Bank. "Now the distinction between core and the peripheral countries has become less, because of the convergence between the two groups."

With the launch of the single currency fast approaching, few traders are willing to take on the combined Emu central banks. "There is no point trading currencies that aren't going to exist in four months' time. People are not taking positions on the lira or peseta," said Paul Cherkow, head of global currency research at Bank of Tokyo-Mitsubishi in London.

Recent signs are that international investors are using the D-Mark as a safe haven. Japanese investors have been heavy buyers of German government bonds, as an Emu proxy. Meanwhile, worries over the stability of Latin America, after Colombia's devaluation yesterday, has made the US dollar a less attractive resting place for capital flows.

## A severe bear market is something to fear

Philip Coggan wonders whether current stock market crashes will plunge to past depths of financial dislocation

A full bear market in all its horror is something that investors in the US and Europe have not seen for a generation. The crash of 1987 offered a glimpse but the fall in share prices was short-lived and the effect on the real economy was relatively limited.

The standard definition of a bear market is a fall of 20 per cent in prices, which means that several European markets - Frankfurt, Madrid and Zurich - have already qualified since yet happened in the US, but only if you measure the stock market by the Dow Jones Industrial Average of 30 leading

shares. The Russell 2000 index of smaller stocks has declined 25 per cent from its high in April.

The latest work on the subject estimates that, by this definition, the US has experienced around 25 bear markets this century, or around one every four years. But many of these declines would not fall into the severe bear market category. In a severe bear phase, the share price decline is so sharp that recovery takes years, not months and the financial dislocation has substantial effects on the real economy.

For an example of a severe bear, one need look no fur-

ther than Japan, where the Nikkei 225 average stands at less than half its 1989 peak level and the banking sector is still suffering from the impact of the market's fall.

Probably the two classic bear markets of the century occurred between 1929-1932 and 1973-1974. The sheer duration and scale of these declines ruined many investors. The US market's low did not occur until three years after "Black Thursday" in October 1929 and the Dow Jones Industrial Average did not reclaim its peak level until 1954.

Those who believe, as now, that it makes sense to "buy on the dips" were bitterly disappointed. The 34.9 per cent fall in the UK market in 1973 did not represent a buying opportunity, since

shares fell a further 54.7 per cent in 1974.

Such severe drops have a particularly adverse effect on those who have borrowed money to invest in the market.

In 1929, many investors were operating on margin accounts, through which they only had to put up 10 per cent of the cost of the holdings. When share prices fell more than 10 per cent, they not only lost all their capital, they had to find more money to cover the deficit. Hedge funds are the obvious modern equivalent of such leveraged investors.

The 1973-74 bear market was so severe because it was not confined to share prices. As the oil price rose and inflation soared, property and bonds suffered almost as

heavily as equities. Cash is king was the motto of the era.

Prices suffer severely in such markets because investors are forced into selling at a time when it is very hard to convince anyone else to buy. The stock market starts to resemble a "closing down sale" at a defunct high street store, with shares selling at knockdown prices.

Few are predicting such conditions will occur in the US or Europe this time. But investors in Russia, where the RTS index has dropped 83 per cent this year and 66 per cent since July 30, now know all about bear markets.

"The Bear Book: Survival and Profit in Ferocious Markets" by John Rothchild, published by John Wiley & Sons, New York

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# Fighting to compete in a global market

The new combat jet will be a key product as Europe moves to consolidate its defence business, writes Alexander Nicoll

## Typhoon: a name with a heritage

By Alexander Nicoll, Defence Correspondent

Europe's new combat aircraft was given an additional name yesterday: Typhoon.

The manufacturers deemed it necessary to give the aircraft a brand-name that would be more acceptable globally than one emphasising its European origin.

Eurofighter hopes to capture a significant chunk of what it estimates to be a \$70bn export market for some 800 aircraft between 2005 and 2025. The new name is part of the marketing strategy of the consortium, British Aerospace, Daimler-Benz Aerospace of Germany, Alenia of Italy and Casa of Spain.

Although it is only for export, the Typhoon name is intended to capture the heritage of Eurofighter's predecessor, the Tornado. It also sounds the same in all the languages of manufacturers, each of whom has taken on responsibility for marketing the aircraft to a number of potential customers.

The British and German air forces both flew previous Typhoons. The Royal Air Force's was a ground attack fighter during the second world war, while the Luftwaffe's Taifun was the Messerschmitt 108, a precursor to the more famous 109.

Filippo Bagnato, chairman of Eurofighter, said even before any export sales, the construction of the 630 aircraft now on order would involve 400 suppliers across Europe and 150,000 jobs at peak production.

Brian Phillipson, managing director, said Eurofighter had been "the most debated, most studied, most analysed programme in the history of the world". But it had survived and now had the largest procurement order for military aircraft currently under way globally.

Aerospace survey, separate section

See Observer column



United Kingdom

British Aerospace

● Holds 35% of Saab

● Partner in Eurofighter

● Partner in Airbus

● Holds 50% stake in Matra BAe Dynamics missile joint venture with Legardere. Matra BAe has 30% of LFK, Dassault's missile subsidiary.

● Has joint venture with Dassault Aviation on future aircraft technology

● Has 49% in STN Atlas, German electronics company, with Rheinmetall controlling remainder

● Partner in Archer (army radio) consortium with Racal and IRI Industries

● Royal Ordnance subsidiary discussing joint venture with Rheinmetall

General Electric Company (GEC)

● Holds 49% of Matra Marconi Space, with Legardere holding 51%

● Holds 50% of Alenia Marconi Systems, with Alenia subsidiary of Finmeccanica holding 50%

● Holds 49.9% of Thomson Marconi Sonar, with Thomson-CSF holding 50.1%

● Purchased Thales, Texas electronics company

● Discussing alliance/joint venture between Westland helicopter division and Agusta, part of Finmeccanica

Alvis

● Owns Hagglunds, Swedish armoured vehicle maker



France

Aérospatiale

● Partner in Airbus

● Partner in Eurofighter

● Agreed to merge with Matra subsidiary of Legardere, with government divesting majority

● Holds 40% of Dassault Aviation, with Dassault family holding 49%; remainder topped

Legardere

● Agreed to merge Matra on with Aérospatiale

● Holds 50% stake in Matra BAe Dynamics joint venture, which has 30% of LFK, Dassault's missile subsidiary

● Holds 51% of Matra Marconi Space, with GEC holding 49.9%

Thomson-CSF

● Holds 50.1% of Thomson Marconi Sonar, with GEC holding 49.9%

● Formed close relationship with Alenia, which holds 16.5% of Thomson-CSF with French state controlling less than 50%



Germany

Daimler-Benz Aerospace (Dasa)

● Partner in Eurofighter

● Partner in Airbus

● Partner in Eurocopter

Rheinmetall

● Discussing joint venture with Royal Ordnance, BAe subsidiary

● Controls STN Atlas, with BAe holding 49%



Italy

Finmeccanica

● Alenia subsidiary: partner in Eurofighter

● Alenia holds 50% of Alenia Marconi Systems, with GEC holding 50%

● Agusta subsidiary discussing alliance/joint venture with GKN Westland



Spain

Casa

● Partner in Airbus

● Partner in Eurofighter



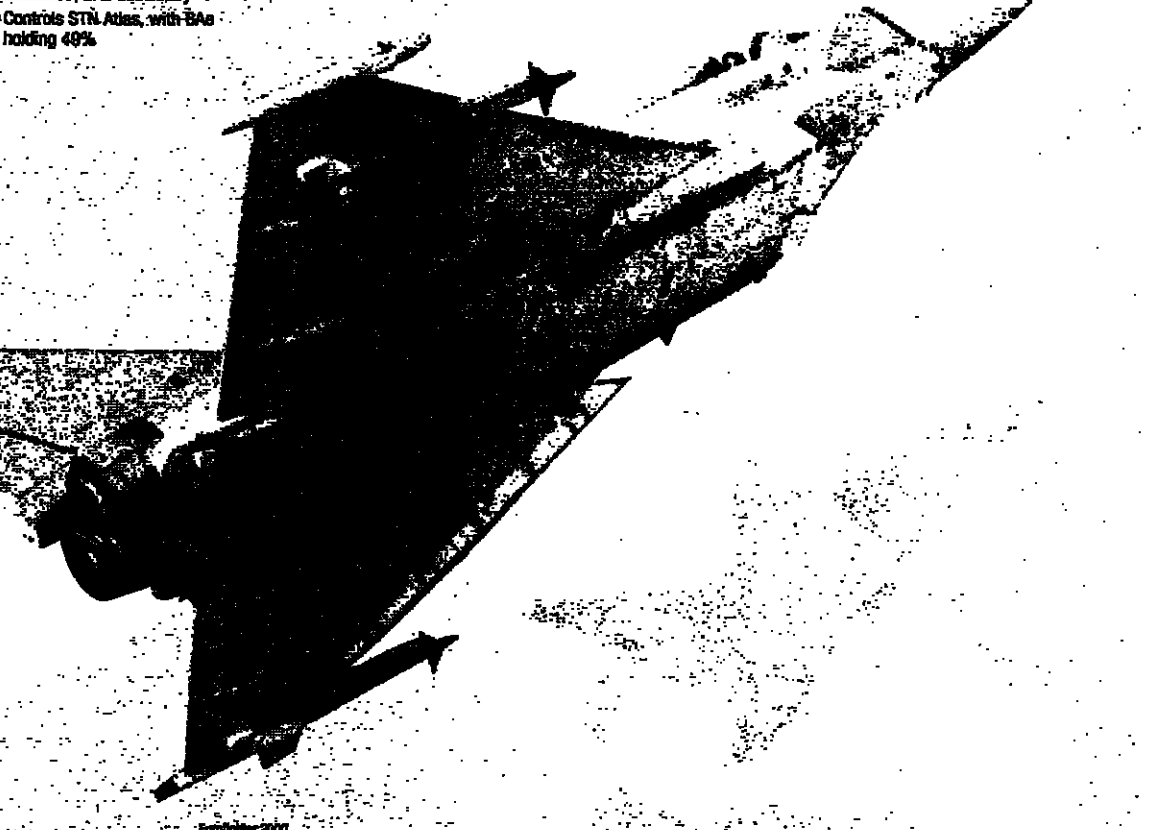
Sweden

Saab

● BAe holds 35%

Hagglunds

● Purchased by Alvis



Typhoon 2007

When the Eurofighter is put through its paces for the crowds at the Farnborough air show in southern England next week, its display will have greater significance than showing off the aerobatic capabilities of Europe's next generation combat aircraft.

The aircraft is one of the key products at the centre of the rationalisation of Europe's aircraft and defence industry. Consolidation is seen as essential in coping with the fall in business since the end of the cold war and the emergence of the American companies Boeing and Lockheed Martin as much larger rivals through a rapid series of corporate deals.

"We are seeing the first moves towards the globalisation of the industry, where we only have two or three big players globally," says John Weston, chief executive of British Aerospace.

It is a much slower process than most of those involved would like. Many uncertainties remain, even after the French government's announcement in July that it would merge Aérospatiale with Matra, defence arm of the private Legardere group.

Aérospatiale, Daimler-Benz Aerospace of Germany, BAe and Casa of Spain hope next year to complete negotiations on restructuring the Airbus consortium into a single corporate entity. They are expected soon to exchange dossiers on valuation of the assets each will put into the new company.

Those discussions, however, have been overshadowed in recent months by moves towards a larger European aerospace and defence company of which Airbus would probably be one arm.

Britain, France, Germany, Italy, Spain and Sweden - all the European countries with significant aerospace industries - profess to be committed to this goal. But all in the industry agree that if it is to be achieved, it will have to be done in steps - even a three-way merger of BAe, Aérospatiale and Dasa

would be complicated enough.

Mr Weston says European consolidation is essential so that, as the industry becomes globalised, European companies can deal with their American rivals as equals.

"What we're doing in European consolidation is not trying to create a Fortress Europe to do battle with Fortress America, although there will be elements of that in the short term, but it's very much to do with taking the first steps towards creating a global entity over a 10-year period."

As US companies market their products such as Lockheed Martin's new C-130J Hercules transport at the Farnborough show, there will be question marks over the possibility of creating a truly global company in Europe, given the US government's reluctance to

award defence contracts to foreign suppliers.

European companies such as BAe and General Electric Company of the UK are interested in Northrop Grumman, whose sale to Lockheed was recently barred by Washington. But their interest depends on whether the Pentagon would allow foreign companies to buy sensitive assets such as Northrop's expertise in "stealth" technology.

There are also doubts about the pace of European consolidation, given the uncertain status of Dassault Aviation, the French family-controlled maker of the Mirage and Rafale, which has so far remained silent on the rationalisation issue.

Customers, too, have to change their practices. European governments need to co-ordinate procurement more closely so that a larger, consolidated defence com-

pany can produce equipment in sufficient quantities to be economical. Eurofighter is an example of four-nation co-operation, but has a French rival, the Rafale.

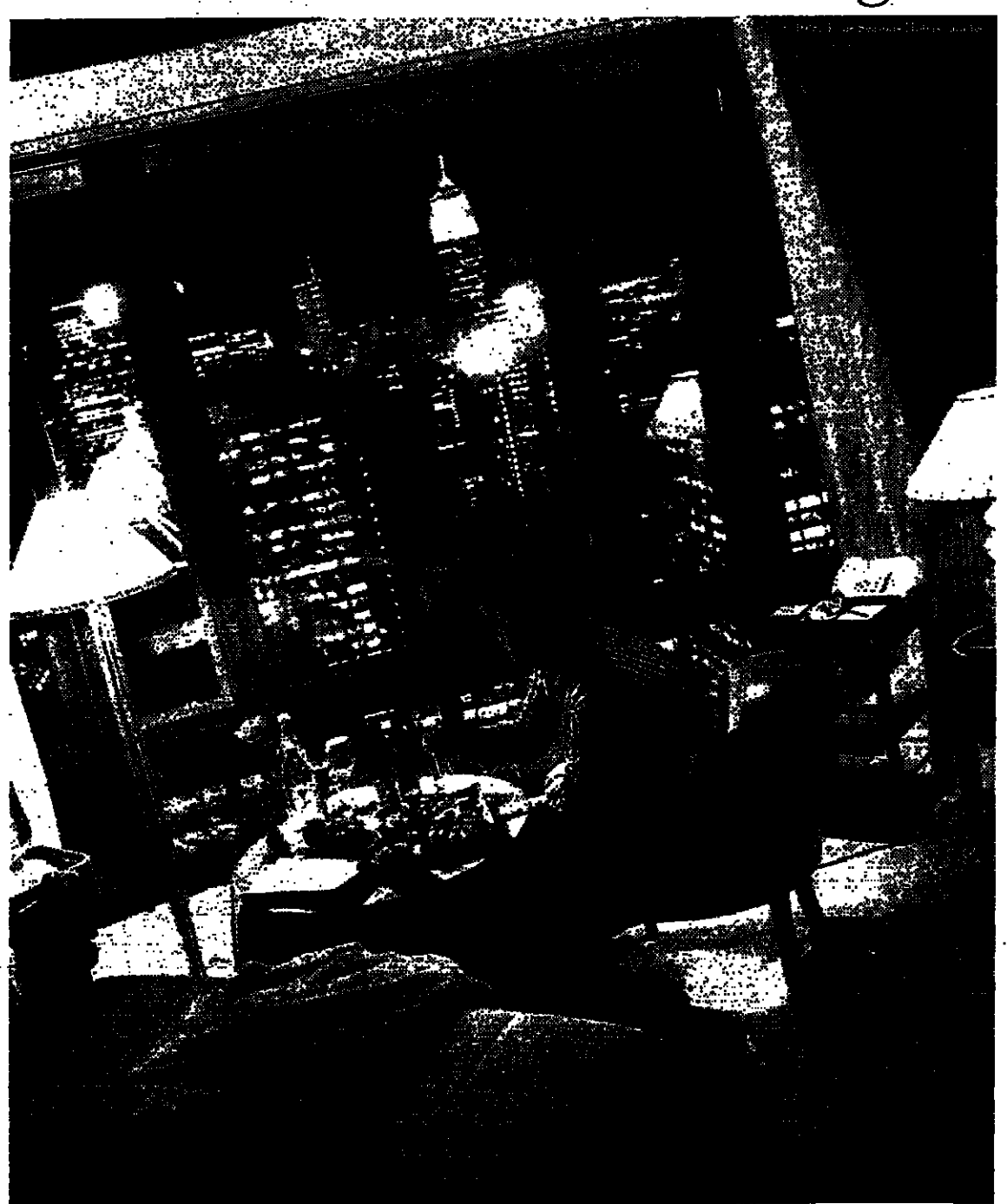
Mr Weston argues it is best to consolidate while the order book is strong, with Airbus winning plentiful orders and production of 630 Eurofighters getting under way, because healthy order books can motivate workforces to drive improve-

ments in productivity.

But it is a complex, multi-dimensional game in which the players are close allies on some levels and bitter competitors on others. "When it's all over we probably ought to sit down and devise a computer or board game of it all. It could be the 21st century 'Diplomacy'," Mr Weston says.

Aerospace survey, separate section

## "I know it's late, but I'd like some sushi. How far do I have to go?"



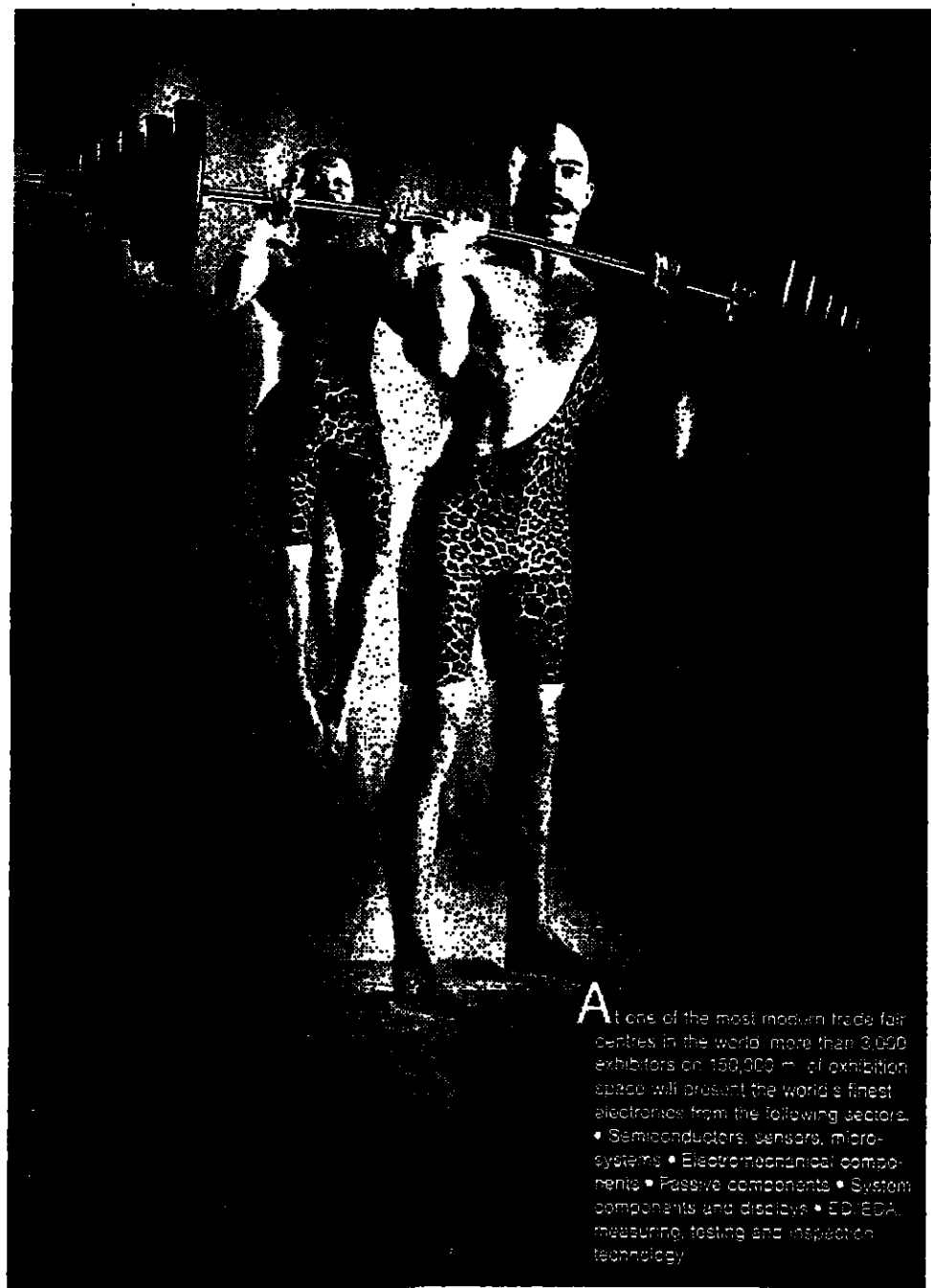
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### WHOLE CURRENCY

### Euro-zone: an oasis of calm

By Richard Adams, Economics Editor

As the world's capital markets have started to tremble, the Euro-zone has emerged as an oasis of calm.

The 11th month of the year has been a period of relative calm in the capital markets, with the Euro-zone emerging as a haven for investors seeking stability.

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## INTERNATIONAL

## Israeli public sector strike starts today

By Judy Dempsey in Jerusalem

Israel's Histadrut trade union federation begins an open-ended general strike today after the breakdown yesterday of negotiations with the finance ministry over wage levels.

The Histadrut, which represents the public sector, has vowed to shut down ministries, schools, telecommunications, electricity and other government services if Yassir Arafat, finance minister, does not meet its demands for an 8 per cent pay increase.

However, the strike, expected to involve 300,000 workers, will also pit Amir Peretz, a popular union leader, against a minister determined to make the economy more competitive.

Mr Neeman, who last year caved in to union demands over pension rights after a nationwide strike brought

the economy to a halt, said he was prepared to offer the Histadrut about 1 per cent.

He is also holding separate talks with teachers who have been on strike for two days over payments for overnight school trips. They want payments raised from Shk50 (\$13) per night to Shk750. Mr Neeman has offered them Shk100.

The outcome of that strike could influence the Histadrut's tactics, since the timing comes just ahead of Jew-

ish holidays when many Israelis go abroad.

But Mr Neeman, widely disliked by the Histadrut who believe he is contemptuous of workers, appears to be taking a tough line. Appealing to public opinion, he said if "we have to give into the Histadrut, then we, the citizens, should know we will be obliged to pay more taxes."

Other ministry officials said the government was determined to keep inflation in check.

Inflation is running at about 4 per cent this year, the lowest in 30 years. But a heavy public sector wage increase, combined with the recent 6 per cent depreciation of the Shekel against the dollar, could push up inflation, something Mr Neeman is determined to avoid.

He also wants to prevent any significant outflow of foreign capital as investors in other emerging markets take flight because of the Russian crisis. Last week, the Tel

Aviv 100 and Maof blue chip indices fell by 8.1 per cent and 9.3 per cent respectively.

In calling the strike, Mr Peretz will also have to judge public reaction. Despite the pending holidays, he is being encouraged by some of Mr Netanyahu's coalition partners to challenge Mr Neeman, whom they resent because his political independence in the government makes him less beholden to the demands of the coalition parties.

## Non-aligned nations seek defined role

By Victor Mallet in Durban

Since the end of the cold war, the leaders of the 113 states that make up the Non-Aligned Movement (NAM) have been defensive about its meaningless name - with what are they not aligned now that there is no confrontation between East and West? - and groping for a constructive role to play in global politics.

The strategy they have developed over the last few years, and strengthened at the NAM summit in Durban this week, has been to tone down their anti-western rhetoric while emphasising the economic grievances of the underdeveloped "south" and bringing them to the attention of the wealthy industrialised nations of the "north".

A couple of years ago, such Third World complaints about the damaging effects of economic liberalisation and "globalisation" might have been dismissed as the whining of incompetent governments.

But the economic crisis in the previously successful nations of east Asia, the turmoil in Russia, the travails of emerging markets around the world and a loss of confidence in the International Monetary Fund as an effective overseer of the global economy have given new weight to the concerns of developing countries.

In addition to old campaigns for debt relief and representation for developing countries on the UN Security Council, NAM members this week launched a drive to find a way of controlling volatile capital flows.

While Malaysia has announced plans to control foreign exchange and stock market transactions, other states are being more measured. They accept that globalisation cannot be wished away, but argue that the rapid ebb and flow of short

term investment funds can damage otherwise sound economies.

South Africa - whose highly liquid currency, stock and bond markets have declined sharply in recent weeks, forcing up local interest rates - is one victim. Thabo Mbeki, South Africa's deputy president, expressed concern at the rapid movements of "huge sums of short term money". He said in Durban: "We want capital which comes and stays."

Among the solutions proposed is one, employed until recently by Chile, that discourages short term investment by requiring a specific percentage to be invested in the establishment of an international system of regulating capital flows and mechanisms to increase the transaction costs of currency trading.

"Unlike the increasing insistence by the North in every possible forum on the need for good governance in developing countries, the issue of global governance has hitherto not formed part of any agenda," said a report prepared by a group of economists for the NAM, called "Elements for an Agenda of the South".

The financial chaos in Asia, and the market turmoil of the past week, appears to have given NAM a new sense of purpose after decades of being dismissed as a talking shop. Opening the summit yesterday, President Nelson Mandela of South Africa appealed to the industrialised states to show compassion for the poor and not to remain wedded to orthodox economic prescriptions. "Or will these leaders rather tell us that the values of the market are supreme and its instruments and mechanisms an ineluctable force, in the face of whose power all who aspire towards human dignity must bow in respectful obedience?" Mr Mandela asked.

## Population explosion 'not over yet'

By Frances Williams in Geneva

The United Nations Population Fund warned yesterday the global population explosion is not over and that world population could grow as rapidly in the next 50 years as in the past 50.

In its annual report on The State of World Population, the UNFPA said past high fertility rates meant that more young people than ever before are now entering their reproductive years.

Though the average fertility rate has dropped by half, from six children per woman to three, world population is still growing by 80m a year. UN projections suggest that after passing the 6bn mark in mid-1998, world population will rise to between 7.7bn and 11.1bn by 2050, with 9.4bn considered "most likely".

"That means population may grow as much or more in the next 50 years than in the past 50," the report says. In 1950 the total number of people in the world was 2.5bn whereas developing countries alone are now home to over 2bn people

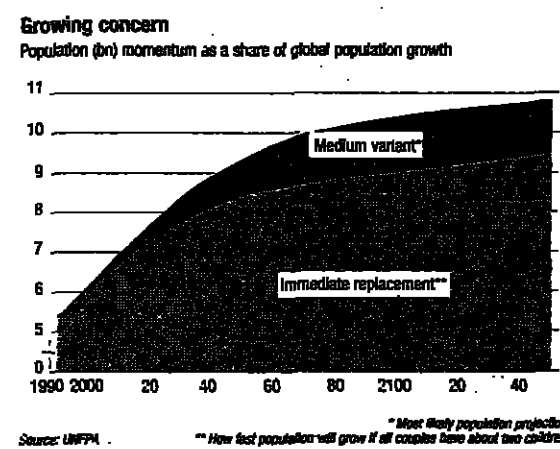
under the age of 20.

Even if fertility rates immediately fell to replacement levels, with couples having on average only two children, the world's population would reach around 8.5bn by 2050. This population "momentum" accounts for two-thirds of projected growth on the "most likely" scenario.

There are, however, marked differences between regions. In Europe, where fertility rates have been low for some time, the population is seen as peaking at around current levels and then declining over the next half century.

In North America and east Asia, population is projected to stabilise after about 2020. But in other areas of the world the number of people is expected to go on rising rapidly, most spectacularly in sub-Saharan Africa where it could more than double from under 700m now to more than 1.7bn by 2050.

In sub-Saharan Africa, according to UNFPA, women still have six children on average compared with four for all developing nations excluding China.



Some 51 countries accounting for 44 per cent of the world's population have birth rates at or below two children per couple - including most rich industrialised countries, China and a few other rapidly industrialising countries such as Thailand.

By 2015, that number is projected to reach 88 countries with two-thirds of the world population, assuming fertility rates continue to fall. The report notes that contraceptive use has risen five-fold since the early 1960s, from 10-12 per cent of married couples to 60 per cent, but says many unwanted pregnancies still result from lack of easy access to cheap contraception and family planning advice.

Even small variations in fertility can make a huge difference to projections of the ultimate size of the world's population, the report points out. If, starting

in 2025, fertility rates stabilised at 2.2 children per woman, the population would reach 18.3bn by 2150. If fertility stabilised at 1.8 children per woman, the population in 2150 would be just 6.4bn or little higher than today. Raising the age at which mothers have their first child from 18 to 23 would reduce population "momentum" by more than 40 per cent, according to UNFPA, which calls for greater support for family planning and related programmes.

The report also urges countries expecting a temporary bulge in the working-age population to make the most of this "demographic bonus" in order to ease the future burden of an ageing society.

*The State of World Population 1998. Available from UNFPA, 220 E. 42nd Street, New York, NY 10017, USA. fax +212 557 6416, website www.unfpa.org*

## Khartoum to recall envoys from the US

By Adrian Michaels in Washington

Sudan said yesterday it would withdraw its diplomats from the US in protest at what it terms the "monumental mistake" of a missile attack on the Al-Shifa pharmaceutical plant in the capital Khartoum last month.

Mahdi Ibrahim Mohamed, Sudan's ambassador to the US, said in Washington that he hoped the withdrawal would be temporary. It did not imply a severing of diplomatic relations but was a strong message of protest at the aggression shown against his country's "sovereignty, sanctity and territorial integrity". The US has maintained it has compelling evidence that the plant, which Sudan says was being used to manufacture human and veterinary medicines, was making precursors to chemical weapons, specifically the nerve gas VX.

US officials said they had been told of the diplomats' withdrawal a few days ago. They acknowledged that there had been increased efforts to demonstrate their evidence of the plant's involvement in chemical weapons to congressional leaders. This effort is in part being seen as a response to growing scepticism from a

number of allies, including Germany and Japan.

William Cohen, defence secretary, and George Tenet, director of the Central Intelligence Agency, have briefed a number of senators, it was reported this week. Mr Cohen and Mr Tenet were said to have provided new evidence of ties between the plant's owners and Osama bin Laden, the man the US believes was behind the bombings of its embassies in Kenya and Tanzania.

Mr Mohamed said Sudan planned to file a complaint to the International Court of Justice in the Hague. He said he would also formally ask US congressional leaders to investigate the attack and for a review of State Department policy toward Sudan. He said no chemical weapons were being made at any plant in Sudan.

The US remains adamant that the plant was being used in the process of chemical-weapon manufacture. At a recent meeting between the Sudanese ambassador and Susan Rice, assistant secretary of state for African affairs, no apology for the attack was made. "She did not apologise, she did not offer to apologise and she did not make an offer of reparations," a US official close to Ms Rice said yesterday.

## WORLD TRADE

## SPANISH TELECOMS PROTEST OVER PRICES

## Internet surfers go on 'strike'

By David White in Madrid

Spanish internet surfers have been summoned to stay away today in an unprecedented strike movement, organised through the internet, to protest against the cost of going online.

A "phones down" campaign calls on Spain's 1.7m internet users to boycott the system for a day and leave their home telephones off the hook. Web site owners have been asked to change their home pages to give any wayward caller the message "Page on strike".

José Manuel Villar sought to mollify the protesters by promoting the idea of a flat-rate monthly deal for internet subscribers. He recommended users to log on at night or weekends

The protest is against steep increases in telephone charges. Internet connections are charged in Spain at local rates, in the past kept low at the cost of overpriced long-distance calls. The former state-controlled company Telefonía still has a de facto monopoly on local traffic.

Last month, as part of deregulation plans, the government set a new scale of charges. As a result, a one-hour daytime connection, previously Ptas39 (92 cents), now costs Ptas129 (29 cents), has gone up 126 per

cent to Ptas314. The Association of Internet Users, with 6,000 members, is backing the strike.

But it said the impetus came from "more or less anonymous" individuals, some connected with computer hackers' groups.

Three weeks ago hackers invaded a news agency site to announce today's protest. The association made clear it would not support calls for tougher protests such as attacks against internet service providers or attempts to collapse the whole telephone network.

Gloria Marcos, speaking for the association in Barcelona, admitted it would be almost impossible to measure how successful the strike had been. "All users are angry," she said. The association was planning today to present a petition with 13,000 names, plus comments received on the internet, to government authorities.

"There's never been a strike like this," said Vicente Robles, editor of PC Magazine's Spanish edition.

Telefonía put the blame for the new rate structure on the government and said connection charges were still comparatively low.

José Manuel Villar, state secretary for telecommunications, sought to mollify the protesters by promoting the idea of a flat-rate monthly deal for internet subscribers. He recommended domestic users to log on at night or weekends to take advantage of cheaper rates.

## Russian troubles add to woes of Turkey's 'suitcase trade'

The collapse of the rouble has further undermined a vital export market for Turkish goods, writes Christopher de Bellaigue

To entrepreneurial Turks, Laleli is a reminder of the anarchic vitality of their export economy. Since the early 1990s, this unlovely part of Istanbul has been synonymous with Turkey's "suitcase trade" - the loosely taxed export of textiles, foodstuffs and construction materials to a new generation of consumers in countries of the former Soviet Union.

Nowadays, though, Laleli finds itself twinned with images of calamitous decline. Two years ago, the sale of Turkish goods to individual buyers from Russia, the Caucasus and eastern Europe earned Turkey an estimated \$8.5bn in foreign exchange. By last year, revenues had declined by 20 per cent. Gloomy traders forecast a further decline of 30 per cent this year.

"Three years ago, we had so many customers, you would not have got through the door," said Mustafa Ergin, who makes and sells cotton trousers and blouses. "We were doing \$50,000 worth of business a month. Now we're losing money all the time." One shipping agent says his profits have been reduced by more than 50 per cent in the past two years.

Now, since devaluation of the Russian rouble last month, Turkish entrepreneurs and bureaucrats have been busy calculating how much Turkey's trade deficit, an unhealthy \$7.5bn for the half of 1998, might be further distended by the economic and political woes of their second-largest trading partner.

Their calculations do not make cheerful reading. While the Istanbul Stock Exchange index has mimicked its Moscow counter-

part, plunging last week to its lowest level all year, some government officials predict a fall in exports to Russia of more than \$700m in 1998 (official bilateral trade was worth some \$4bn in 1997). And some Turkish construction companies are afraid that a moratorium on debt repayment will affect their chances of getting paid for the projects they are undertaking in Russia.

Meanwhile in Laleli, the most striking evidence of decline is the absence of Russian women. In its heyday, they would fly to Istanbul and load leather jackets and other goods on to tankers bound for Novosibirsk. Not this year. During the first six months of 1998, sales of leather goods in Laleli fell by 70 per cent. "If it wasn't for the Bulgarians and Romanians, things would be even worse," says one trader.

Burgas is smaller than the Romanian port of Constanta, its main competitor for transit cargoes, but occupies a more sheltered position in a deep inlet, protected from east winds that can block access to Black Sea ports in winter. It is also closer to Georgia and to the busy Bosphorus shipping lane linking the Black Sea with the Mediterranean.

Under communism, raw materials from the Soviet Union for Bulgarian factories were imported through Burgas and goods they produced exported to the former Comecon countries. Since the early 1990s the port has served as a transit point for trade with the eastern half of the Black Sea rim, in spite of poor road and rail links

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Merchants in Istanbul. The sale of Turkish goods to buyers from Russia has declined. Pance Pictures

Devaluation of the rouble and unemployment in Russia are partly to blame, as is competition from Chinese products. Chinese T-shirts are even cheaper than Turkish ones and Italian shoes last longer. Russia has reduced, from \$2,000 to \$1,000, the value of goods that Russians can import duty-free, and made it harder for those importing more to escape paying 20 per cent duty-side-steppable, until recently, with a bribe.

Since the collapse of the rouble sales have fallen even faster. "The Russians have stopped coming," said one trader. Despite the scarcity of business, he refuses to extend credit to Russians. "Thanks to the demand for dollars," he said, "I'm not sure they will be able to pay me."

Laleli's success has bred complacency, too. The quality of some goods has dipped so sharply that stores in Moscow are said to carry signs which say "No Turkish goods stocked here".

None of this means that Russians are uninterested in Turkish goods - as long as the conditions are right. Ramstore, 20,000 square metres of Turkish clothes, food and construction materials in the middle of Moscow, is used to welcoming between 5,000 and 7,000 customers a day. "Business between us is not dying," says one Russian official. "People are merely moving from unofficial to official trade."

Quays at Burgas are piled high with coal and ore concentrates which are transported by rail to Kremikovitsi, Bulgaria's main metallurgical plant. Pallets stacked with lead ingots and rolls of coiled steel await loading for export. Trucks filled with bales of cotton from Uzbekistan are lined up for customs clearance.

A ro-ro ferry link which began last year between Burgas and Poti has been extended to include Novorossiysk, Russia's biggest Black Sea port. Two ferries operate the triangular route, each

carrying 70 trucks. Outbound from Burgas they carry foodstuffs and consumer goods. On return, cargoes are mainly cotton, timber and non-ferrous metals.

Mr Dereliev says the port authority will receive increased revenues this year from operating a separate oil terminal south of the main port, which serves a refinery and petroleum products complex controlled by Neftekhim, the state petrochemicals group. Crude oil imports are expected to increase 13 per cent to 8.5m tonnes this year as Bulgaria's economic recovery gathers pace.

## BURGAS \$120m JAPANESE LOAN ENABLES MODERNISATION OF BLACK SEA FACILITY

## Boost for Bulgarian port

By Theodor Troev and Karin Hopf

A \$120m loan from Japan has enabled Bulgaria to start modernising the Black Sea port of Burgas, which the pro-market government is keen to promote as a transit point for trade between Europe and central Asia.

Burgas, the country's biggest port, already claims to be one of the busiest in the region. Its through-put of dry cargoes increased 6 per cent to 7.5m tonnes last year in spite of Bulgaria's economic crisis. Dry cargo traffic is expected to increase this year by about 7 per cent.

"We're seeing much bigger flows of transit goods. There is a particularly big increase in cargoes from Poti in Georgia. It's becoming an impor-

tant outlet for the central Asian republics," says Captain George Dereliev, chief executive of Burgas Port Authority.

The 30-year soft loan from Japan's Overseas Economic Co-operation Fund, a government agency, is the biggest Bulgaria has secured to date for upgrading its Soviet-era infrastructure.

The loan will provide 80 per cent of financing required to extend a main breakwater and build new terminals for bulk, liquid and general cargoes by 2004. The other 20 per cent will be covered out of earnings by the port authority, one of only a few Bulgarian state enterprises to have remained profitable during the country's painful economic transition. Mr Dereliev says net profits last year amounted to

DM11.5m (\$8.3m), which was re-invested to complete the construction of a 10,000-tonne cold storage facility.

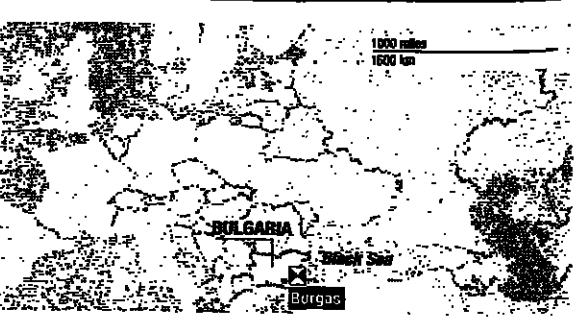
The port authority has started dredging the main shipping channel to allow vessels of up to 80,000 deadweight tonnes to berth at the quayside. The master-plan for Burgas port calls for building two new terminals for roll-on-roll-off (ro-ro) ferries and container feeder vessels at a cost of about \$200m after the other terminals are completed.

"We operate at 80 per cent of capacity at present and the facilities are under strain," Mr Dereliev says. "By extending the breakwater and building additional terminals we'll be able to increase turnover by 30-40 per cent. That will help to attract more investment,

possibly from private companies."

Burgas is smaller than the Romanian port of Constanta, its main competitor for transit cargoes, but occupies a more sheltered position in a deep inlet, protected from east winds that can block access to Black Sea ports in winter. It is also closer to Georgia and to the busy Bosphorus shipping lane linking the Black Sea with the Mediterranean.

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Strike by pilots hits Air Canada

American ministers discuss crisis impact

Line in orders reported

Warns US banks



هكذا من الامم

## US senators pick up finance law baton

By Richard Wolfe  
in Washington

The long struggle to reform the archaic US financial laws will resume today as senators plan to begin revising a draft of new legislation governing the banking, securities and insurance industries.

Alfonse D'Amato, chairman of the Senate banking committee, is determined to pass a bill reforming financial services laws to the floor of the Senate as soon as possible.

Senators have come under increasing pressure to overhaul restrictions on the cross-ownership of banking, insurance and securities - and to do so quickly.

The wave of mergers in the financial services industry, especially the big merger between Citicorp and Travelers Group, has given new impetus to the complex debate, which has failed to progress through Congress for more than two decades. Unless the financial laws are reformed within five years, the newly formed Citigroup

will be forced to sell Travelers' insurance underwriting business.

The House of Representatives' historic vote to pass - by just one vote - its version of financial reform legislation in May has placed the Senate banking committee at the centre of intense back-room negotiations between financial interest groups and legislators.

Meetings between senators and lobbyists over the summer have resulted in suggested compromises over key areas of dispute. In particular, agreements are reported to have been reached to meet bank objections to provisions which would force them to buy existing insurance agencies in order to sell insurance.

Even if it passes a vote the complex web of legislative deals threatens to unravel outside the banking committee, in the face of stiff opposition from insurance agents, the American Bankers Association and, not least, the Clinton administration.



Alfonse D'Amato (left) and Robert Rubin conflicting views on legislation

With just a month of Senate time before congressional elections in November, there is little opportunity to work out a substantial compromise on the Senate floor. More than a third of the members of the Senate banking committee are up for re-election, and any senator can place a hold on the legislation to delay it beyond the October adjournment.

Moreover, if the Senate substantially revises the House's legislation, there may be too little time to harmonise the two versions of the bill before the elections.

The White House last month repeated its vigorous opposition to the bill as it currently stands. Erskine Bowles, chief of staff, indicated in a letter to Mr

D'Amato that President Bill Clinton would veto the bill. Robert Rubin, Treasury secretary, remains rigidly opposed to the legislation, accusing it of undermining the US banking system and the Treasury's role in overseeing the industry. He is highly critical of plans to shift regulation of the new financial conglomerates away from the Treasury's

comptroller of the currency to the Federal Reserve.

In a hearing before the Senate banking committee in June, Mr Rubin openly clashed with Alan Greenspan, the Fed chairman, saying the new laws would shift a key piece of economic policy to the unelected Federal Reserve.

The new laws require financial companies to place their new operations in an affiliate of a bank holding company. This would allow financial conglomerates to avoid their legal responsibilities to serve deprived communities, according to the Treasury.

While the various industry groups appear to have bridged some of their differences this summer, the turf war between the Fed and the Treasury shows no sign of abating. Treasury officials conceded a considerable struggle over the reform of the Internal Revenue Service this year, and are understood to be highly reluctant to lose further powers in another battle with Congress.

## Bogotá bows to devaluation pressure on peso

By Adam Thomson in Bogotá

Colombia has become the first Latin American country to bow to pressure on emerging markets and devalue its currency.

The central bank said it took the decision to devalue the peso by 9 per cent amid growing pressure from deteriorating world markets and an imminent devaluation in neighbouring Venezuela.

Central bank officials said

the devaluation would weaken the exchange rate by 8 per cent but would not affect the gradient of the peso, which would remain constant at 13 per cent.

Most economists agree that the peso was overvalued by approximately 10 per cent, but see risks in the decision to devalue now.

Despite the government's recent promise to cut this year's \$8.5bn budget by approximately \$250m, the

market is still concerned about the country's fiscal deficit. The deficit is estimated at 3.5 per cent of GDP this year compared with just 0.3 per cent four years ago.

In addition, Venezuela remains under pressure from speculators to devalue and this had been causing speculation against the Colombian peso.

"The central bank has taken a big gamble," said Armando Montenegro, president of the National Association of Financial Institutions, Anif. "The devaluation is not that great and given the lack of clarity on the fiscal front combined with the Venezuelan situation, further speculation could force the bank to devalue again."

Yet central bank officials said the move was necessary to avoid a severe depletion of international reserves. During the last two weeks, the bank has intervened in the

exchange rate market on three separate occasions, spending \$220m of its international reserves to prop up the peso.

So far this year, the bank has spent more than \$1.6bn defending the local currency. International net reserves now stand at \$3.7bn, equivalent to seven months of imports.

Venezuela is now Colombia's second largest trading partner after the US,

accounting for 18 per cent of total exports.

Central bank officials said the devaluation, which became effective yesterday, would mean that the peso would nominally devalue by a minimum 7 per cent this year, and by a maximum 23 per cent.

The bank's official inflation target for 1998 is 16 per cent, but most economists now expect annual inflation to be at least 18 per cent.

## Caracas economy reform laws backed

By Christine Hoag in Caracas

The Venezuelan Senate yesterday approved a bill which would give the executive special powers to push into law a package of economic reforms, a day before Congress recesses for the rest of the year.

The Congress' lower house approved the package late on Tuesday after a four-hour debate. However, the lower house removed three laws from the package: sales tax reform, modernised regulations for electricity company operations, and the reform of the social security law to place more emphasis on recreation.

The Senate approved this version of the package with minimum debate yesterday.

Left in the package are the laws to reform customs, create a Macroeconomic Stabilisation Fund, renege debt and authorise back-pay to public employees, and four laws dealing with social security reform in the areas of health, housing, pensions, and unemployment.

The stabilisation fund would set up a fund to save unexpected income, such as that resulting from privatisations or unusually high oil prices, to cover shortfalls in lean years when oil prices are down. About 40 per cent of Venezuela's annual budget depends on oil income.

The debt refinancing law is an emergency measure needed to close a \$1.4bn budget shortfall this year to cover foreign debt payments coming due at year-end.

Although the measure was largely seen as a boost of confidence for nervous foreign investors in a climate of capital flight and uncertainty over the outcome of the December presidential elections, the final version of the package sent a mixed signal, said Robert Bottom, editor of the economic newsletter Veneconomy.

"We have an electrical system that's falling apart and needs \$10bn in fresh investment, which the government doesn't have. The answer is privatisation, but investors are not going to come in if they don't have a legal framework. Then we have a really important tax change that would solve a lot of [deficit] problems pushed to next year."

The Senate approved late on Tuesday a law to allow the sell-off of 40 per cent of Pequiven, the state petrochemicals subsidiary of Petróleos de Venezuela. The sale will be held next year.

### FLIGHTS GROUNDED

## Strike by pilots hits Air Canada

By Edward Aiken in Toronto

Pilots at Canada's largest airline walked off the job yesterday, grounding about 600 flights and leaving 60,000 passengers scrambling to make alternative arrangements.

The strike by 2,100 pilots at Air Canada comes ahead of the Labour Day weekend, traditionally one of the busiest travel weekends of the year.

Air Canada handles about 60 per cent of domestic air travel and more than 40 per cent of flights between the US and Canada. Intensive negotiations to avert the strike failed late on Tuesday, with the two sides at odds over wage increases for the pilots, who earn C\$82,000-C\$200,000 (US\$21,300-US\$51,300).

Jean-Marc Bélanger, the pilots' representative, accused the company of precipitating the strike by refusing to budge when the pilots agreed to halve their wage demands.

They had been seeking a two-year deal with an 18 per cent wage increase; Air Canada had offered 11 per cent over three years. The sides were only a couple of percentage points apart when talks collapsed.

Air Canada yesterday urged passengers to postpone travel plans as its ticket-holders could not all be accommodated on other carriers.

The company has alliance

arrangements with several airlines, including United Airlines of the US and Lufthansa of Germany.

Competing airlines, including Canadian Airlines and Delta, also said they would honour Air Canada tickets.

Jacques Kavanian, analyst with HSBC Securities, said the shutdown would cost Air Canada about C\$13m a day and had already lost the company more than C\$30m in profits as passengers booked with other carriers to avoid disruption.

The pilots say generous wage increases are in order as the company recently earned record profits after going through many lean years in the early part of the decade.

Air Canada's net earnings were C\$427m last year, nearly triple the previous record.

But Mr Kavanian said that figure was inflated by one-off asset sales and an income tax rebate.

The airline was struggling with high costs and was likely to see revenues drop with the slowing Canadian economy, he said.

Negotiations with the pilots have taken on added importance as Air Canada faces further contract talks later this year with its flight attendants and early next year with the machinists' union.

Any settlement reached with the pilots is expected to set a precedent for those negotiations.

### NEWS DIGEST

#### MEETING CALLED BY IMF

### Latin American ministers to discuss crisis impact

Economy ministers from nine Latin American countries are arriving in Washington today for a two-day meeting called by the International Monetary Fund to discuss the impact of the global market crisis on the region.

Representatives from the region's leading economies, known as the Group of Nine, will review preventive measures which have been taken in each of the countries to strengthen macro-economic conditions and prepare a paper outlining a regional action plan.

The group's members are Mexico, Brazil, Argentina, Chile, Venezuela, Colombia, Peru, Ecuador and Uruguay. The two-day conference will also be attended by representatives from Canada and the US, including Robert Rubin, US Treasury secretary, and Lawrence Summers, his deputy. Presentations will be made by James Wolfensohn, the head of the World Bank, and Enrique Iglesias, president of the Inter-American Development Bank.

Roque Fernandez, Argentina's economy minister, told a meeting of foreign bankers on Tuesday that Argentina would not enter a recession or suffer any social problems as a result of the market crisis.

Andrea Mandel-Campbell, Buenos Aires

#### US FACTORIES

### Big rise in orders reported

New orders to US factories rose by 1.2 per cent in July, the Commerce Department said yesterday, the strongest rise in eight months.

However in the same month inventories increased by \$1.4bn, or 0.3 per cent, to \$458.1bn. It was the 18th increase in inventories the past 19 months. In an economy accustomed to "just-in-time" stocking practices. There was a 0.3 per cent rise in inventories of materials and supplies and a 0.5 per cent increase for finished goods.

A modest 0.1 per cent monthly rise in unfilled factory orders gives little hope of much inventory reduction in the near term. Most economists expect the turmoil in the world's stock markets to weigh further on manufacturing growth. July produced the second monthly rise in factory orders, but orders have yet to recover from a 2.2 per cent fall in May, the largest drop in three years.

With exports falling, orders during the April-to-June period were 0.7 per cent below the first three months of 1998, Nancy Dunne, Washington

#### YEAR 2000

### Tanoue warns US banks

Donna Tanoue, chairman of the Federal Deposit Insurance Corporation, yesterday issued a stark warning to the US banking industry, telling banks they were loosening underwriting standards too much, and threatening them with enforcement action over the Year 2000 computer problem.

Speaking to the National Bankers' Association in Philadelphia, she said the corporation would be making a second round of on-site Year 2000 assessments at every bank in the US. She said: "This time we are going to be a lot tougher than we were in the first round. The clock is ticking. If we find a significant problem, we will want it fixed. If someone wants to argue about it, that's fine, but we will use enforcement actions to persuade the unconvinced."

She also criticised underwriting standards, drawing parallels with the recent bank run in Russia. She said that in the US, the FDIC was finding "more banks with rapid growth and high concentrations in commercial real estate lending, and in new and untested product lines, such as sub-prime consumer lending". John Authers, New York

#### On the web today

● Mexico: Cautious Zedillo shies away from fraught issues ● Northwest stands down staff ● FDA approves morning-after pill  
<http://www.ft.com/americas>

# Let's talk on a first name basis.

ON 1 SEPTEMBER, ALCATEL ALSTHOM BECOMES ALCATEL

On 18 June 1998, Alcatel Alsthom's shareholders decided that on 1 September, the group would be renamed Alcatel.

The decision reflects Alcatel's focus on telecommunications and related cables and components activities. Today, Alcatel is helping people to communicate more easily, more efficiently and more quickly. So it is clearly time for you to call us by our first name.

[www.alcatel.com](http://www.alcatel.com)

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## ASIA-PACIFIC

# The night Anwar went from future PM to police suspect

Sheila McNulty recounts the events leading up to the fall of Malaysia's finance minister and explores the policy background

For the better part of five years, Anwar Ibrahim has been the man who would one day lead Malaysia. Last night police searched his office amid rumours that the sacked deputy prime minister was about to be arrested.

During the afternoon, hundreds of Mr Anwar's supporters had gathered at his official residence in an exclusive section of the capital as rumours made the rounds that he was about to resign. But he had come too far, and refused to step down.

At 7pm a senior government official delivered a notice of dismissal. A police helicopter flew overhead. And riot police surrounded the nearby residence of Mahathir Mohamad, the prime minister.

The prime minister's department issued a brief statement, saying Mr Anwar had been sacked. It did not explain why. The government-controlled media treated it as just another routine item on

the 11 o'clock news. Mr Anwar's demise has been coming for several months. But, even as the finance ministry portfolio he also held from 1991 was in effect handed to a confidant of the prime minister, Daim Zaiduddin, and reports grew that he might resign, Mr Anwar vowed to stay on.

Although he stopped increasingly open challenges to the opinions of Dr Mahathir and moved back into line, it was too late. Now Dr Mahathir has eliminated the only man who stood a chance of challenging his political authority as he insulates the economy from the outside world.

Members of the cabinet expressed their shock but noted it was the prime minister's prerogative to remove ministers and immediately pledged loyalty to Dr Mahathir.

But Lim Kit Siang, the parliamentary opposition leader, warned of trouble: "The sacking of Anwar is

likely to precipitate political crisis, which will aggravate the worst economic crisis in Malaysia's history.... Mahathir owes Malaysia, as well as the world, an immediate, convincing and an overpowering justification."

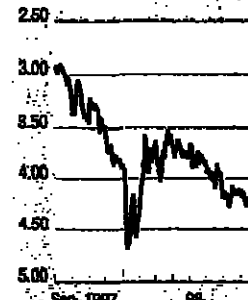
Since the regional financial crisis began last year, Mr Anwar had worked closely with Ahmad Mohamed Don, the central bank governor who resigned last week. They imposed a tight fiscal and monetary regime, which Dr Mahathir now blames for pushing the economy rapidly into recession.

The economic orthodoxy and calm demeanour of Mr Anwar stood in stark contrast to the prime minister and brought him a large following in international financial markets while broadening his support among intellectuals at home.

Mr Anwar urged reform in an open challenge to what analysts saw as Dr Mahathir's attempts to stoke nationalism by condemning

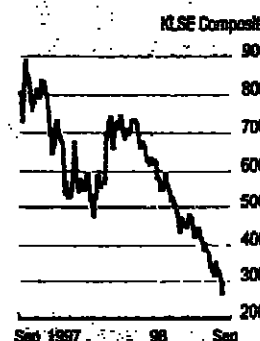
## Malaysia: a sharp departure

Ringgit against the dollar (US per RM)



Mahathir Mohamad, prime minister

- Oct 1997: Mahathir blames Jewish conspiracy for Malaysia's financial problems
- Nov: UEM, one of Malaysia's biggest conglomerates with close links to Mahathir's party, rescues Ronggong, sending shares tumbling
- Dec: Anwar's virtual IMF package of austerity measures
- Jan 98: Mahathir accuses Anwar of appointing Daim Zaiduddin, the PM's confidant, to cabinet as economic guru
- Jan: Anwar tries to make up with conciliatory speech at UMNO assembly
- Jul: Malaysia withdraws \$20m global bond issue; Moody's downgrades Malaysia debt
- Aug: economy shrinks by 6.8 per cent in second quarter
- Aug: central bank governor resigns
- Sep 1: tough restrictions on share dealing and capital controls introduced, ringgit fixed to US\$
- Sep 2: Anwar sacked



Anwar Ibrahim, deputy prime minister

the crisis as a conspiracy by foreigners to undermine the economy.

However, in June, as the general assembly of the ruling party, the United Malays National Organisation, began, a book titled "50 Reasons Why Anwar Cannot Become Prime Minister" found its way into delegates' bags, despite Mr Anwar obtaining a court injunction against its distribution. That

marked the beginning of the end.

Last night at midnight police announced that Mr Anwar was under investigation in connection with the book's contents.

It is unclear where the 51-year-old Mr Anwar goes from here. He represented a formidable constituency of young Muslims and the liberal wing within UMNO which, but for his fall, would

have formed a powerful base from which to challenge Dr Mahathir. That faction is now in effect leaderless.

Diplomats were not surprised by yesterday's events, having watched Mr Anwar being outmanoeuvred by the man who has led Malaysia for the past 17 years. With capital controls in place, analysts noted, there was little room for investors to register a response.

# Re-learning the rules of currency regulation

By Sheila McNulty

For a city that once aspired to be east Asia's leading financial centre, Kuala Lumpur was yesterday a strange place indeed.

While the language of open markets may have been in disavowal since currency turmoil swept the region more than a year ago, yesterday the financial sector was having to re-learn the old language of exchange controls and official rates.

Currency dealers anxiously deliberated how to reconcile outstanding positions. Brokers handling Malaysian stocks spoke in hushed tones, worrying if the tighter curbs would scare investors so much that a business slowdown would force them

out of work. Customers rushed to banks to withdraw funds to convert into foreign currency only to discover they needed central bank permission.

"Everyone is so scared," said Patricia Lui, foreign exchange analyst at Technical Data Thomson Asia. "Especially the man in the street. They don't understand it."

Neither do those in the financial markets. Analysts disagreed about why trading in ringgit took place at all if the currency was pegged at M\$3.8 to the US dollar, after trading around M\$4.2 earlier in the week. It seems the central bank considers that to be merely a "preferred rate" around which a spread, between which banks can convert the currency, is

still being worked out.

Direct foreign investors tried to determine how much bureaucracy came with requirements of approval to bring money in and out of the country and conduct all importing and exporting in foreign currency.

Money changers on the street were unsure what rates to use and, therefore, stuck with old ones. Bank tellers tried to find out what activities required central bank approval.

Brokers frantically accumulated details on clients, which must be furnished to the authorities before approval can be sought to execute any trading on a client's behalf.

And all the while analysts argued over whether foreigners selling shares cannot

repatriate their funds for one year from yesterday, when the curbs were announced, or immediately if they had already held them a year.

But even as foreign investors sold, the benchmark index shot up 12 per cent, recovering most of the 13 per cent lost a day earlier when controls were announced.

Analysts said many Malaysians were buying shares in anticipation of an influx of billions of ringgit held offshore, mostly in Singapore, where depositors had been enjoying higher rates.

Malaysia is giving people a month to repatriate such deposits, after which ringgit outside the country will be declared illegal tender.

Restrictions will keep most of such money from

going abroad and, within the country, investors will have few places to put it.

Singapore is considered the key beneficiary of these restrictions, which, coming after Hong Kong's efforts to prop up its markets, leaves the city state as the most market-friendly country in the region.

What puzzles many is how Malaysia intends to monitor and enforce the myriad restrictions on currency movements of everyone from traders to investors to even travellers, who cannot enter or leave with more than M\$1,000 (US\$260) cash.

The biggest fear is that, in the process of insulating Malaysia from the volatility of global financial markets, it will scare away even the direct foreign investors it

needs for its economy to grow.

The International Finance Corporation (IFC) and FTSE International are considering the position of Malaysia within the stock market indices they compile, following the imposition of currency and capital controls, writes Philip Coggan.

Malaysia was once the biggest single component of the IFC composite index of emerging market stocks, but now represents just 4 per cent. The IFC said the controls were a "pretty serious restriction and a pretty significant impairment of investability". FTSE International said a market with currency controls would not normally be admitted into its FTSE World Index; Malaysia is already a component of it.

## EXCHANGE CURBS SETTLEMENT PROBLEM

# HK tightens rules on short selling

By Louise Lucas in Hong Kong

The Hong Kong Stock Exchange yesterday tightened short selling rules and imposed a temporary moratorium on short selling of three heavyweight blue chips after HK\$7.5bn (\$965m) worth of trades failed to be settled.

Short selling, or selling stock not owned in the expectation of being able to buy it at cheaper prices in the future, is legal in Hong Kong only when backed up with borrowed stock. But this rule has, to date, been only loosely upheld and observed.

The stock exchange also proposed bringing back rules which require short sales to be made at the asking price rather than at the lower bid price, to prevent prices being deliberately pushed down. The rule is common in other markets, and has previously applied in Hong Kong.

The crackdowns - which brokers say could herald a further tightening of the futures market - follow the frenzied trading in the stock exchange at the end of last week, when the government escalated its share-buying spree. Institutions as well as some retail investors, expecting the index to topple once the government retreated, scrambled to take up short positions.

However, many found it impossible to borrow the necessary stock to cover these positions, not least because by the close of Friday the government had accumulated an 8.91 per cent stake in HSBC Holdings, the territory's biggest stock, which accounts for some 30 per cent of the benchmark Hang Seng Index.

The resultant "naked" short selling transactions, which came to light two days later when settlement fell due, totalled HK\$7.5bn.

Brokers said the figure could have been exacerbated by institutions selling stock they held but which their custodians had lent on to other borrowers.

"Under these circumstances, in order to manage the settlement risk and to maintain a fair and orderly market, and not to risk further worsening the settlement cycle, the exchange has temporarily suspended the three stocks from short selling until the backlog has been cleared," the stock exchange said.

However, coming on the back of the government's intervention in the equity markets designed to restore stability by eliminating speculators who attacked the currency in order to manipulate share prices - and Malaysia's introduction of capital controls, the move was seen as another step backwards for free markets.

"Yesterday's events with short selling are another example of regulations and restrictions being introduced, which is a worrying trend," said the stockbroking head of an international investment bank. "People feel this is just the next stage in the deteriorating free environment, the next stage in the build-up of regulations to control markets."

The head of equity sales at another international investment bank said owners were recalling their stock which had been lent out to sell into the government-led rally. "It's only a temporary suspension, but it did send the stock market ballistic in the morning," he said.

Shares soared as investors were forced to buy stock to cover their positions, but turnover was thin and the Hang Seng Index closed the day 4.15 per cent higher at 7,855.67.

See Lex comment

## Will a Non-Executive Director Benefit Your Company?

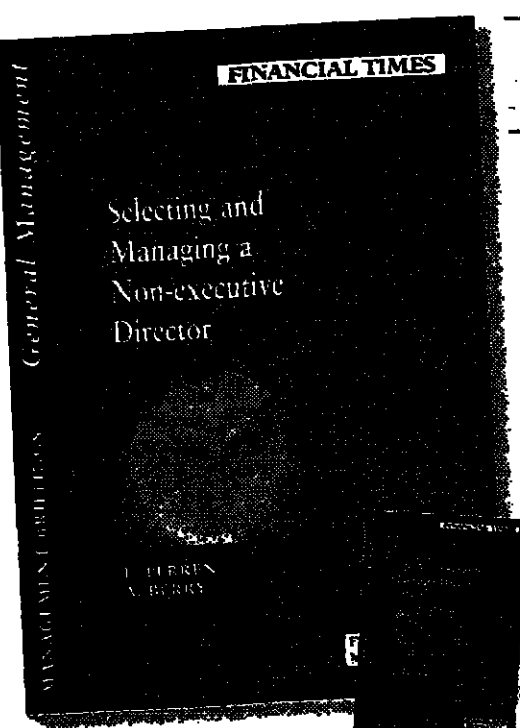
Corporate governance is under the media spotlight, with the Hemptel and Cadbury reports attracting headline news. Now there is even more pressure on company boards to govern impeccably.

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# Australia's economic growth boosts Howard ahead of poll

By Susan Robinson in Sydney

The Australian economy grew nearly 4 per cent in the year to June, giving a boost to John Howard, the prime minister, as the tempo of campaigning increased in the country's general election.

The growth figure exceeded market expectations and the government's own forecast of 3.75 per cent, putting Australia above the average growth rate of industrialised countries in the year to June.

The Australian dollar rose to 88 US cents from last week's record low of 55 US cents; financial markets rebounded on the news, as concerns subsided that the Reserve Bank of Australia, the central bank, would raise interest rates.

The weakening of the US dollar and strengthening of commodities prices yesterday also helped allay fears of Australia's vulnerability to regional economic turmoil. The figures, based on June-quarter national accounts, provided valuable political ammunition for Mr Howard.

Since calling a national



Costello: 'low inflation'

meet earlier targets of 3 per cent, and lowered its forecasts to 2.75 per cent.

Most private economists have predicted growth of 1.5-2.5 per cent in the current year and said the government's revised figure was "unrealistically optimistic".

Peter Costello, the treasurer, announced the downward revision but said the government would adhere to annual growth projections of 3.5 per cent beyond the current year.

Mr Costello cited continued solid growth and "low inflation in the face of the Asian slowdown and an uncertain international environment". But he conceded that unemployment would rise in the year, beyond earlier forecasts of 7.75 per cent to at least 8 per cent.

Private economists said the government's reliance on relatively high forecasts raised questions about its projected budget surpluses for the years to June 2000 and 2001.

The projected surpluses are central to the government's ambitious tax reform proposals, featuring A\$13bn (US\$7.5bn) in personal tax cuts and a 10 per cent goods

and services tax from the year 2000.

Economists have warned that the delayed effect of the Asian turmoil would eat into the surpluses, making tax cuts difficult.

"It's a most improbable outcome, and it's the basis on which the government is making its single most important economic policy decision: the size of net tax cuts in the year 2000," said John Edwards, chief economist at HSBC Markets.

Yesterday's figures showed the average measure of gross domestic product, the broadest guide of the economy's health, rose 3.9 per cent in the year to June.

Growth was driven by a 1.3 per cent increase in private consumption, as spending on services and record car sales helped offset weaker retail sales, reflecting a shift in consumption away from goods towards services.

While growth slowed from the previous quarter's 4.9 per cent, the national accounts showed Australia's underlying fundamentals remained solid, confounding most private economists who had predicted a weak result.

## BOND ISSUE POORER INTERIOR TO BENEFIT IN BID TO INCREASE DOMESTIC DEMAND

# China directs investment inland

By James Kyng in Beijing

China is to spend the bulk of a planned RMB100bn (\$12bn) bond issue on its relatively poor interior, signalling a greater emphasis on domestic demand rather than export-led growth.

Zeng Peiyuan, chairman of the state development and planning commission, said that 60-70 per cent of the funds raised from the bond issue could be invested in projects in the central and western areas of China.

In the past, coastal areas have received the lion's share of investment, which sought to profit from China's export-led boom. But now as exports falter, Beijing is turning its attention toward the continental economy.

Officials also realise that sluggish spending in inland

areas is the main drag on headline economic growth. Revigorating demand in the rural and hinterland economy is crucial to hopes for rapid growth this year and beyond.

In spite of doubts voiced last month by top officials over the nation's 8 per cent growth forecast for this year, the target has since been reaffirmed as a central plank of government policy. Growth in the first half of the year was an annualised 7.8 per cent, compared with 8.8 per cent last year.

Proceeds from the bond issue are earmarked for an ambitious Keynesian stimulus package. Roads, rail, ports, airports, state granaries, housing, power grids and telecom networks are to be built. Water conservation and forestry projects

are also to be undertaken, the People's Daily newspaper said.

Investment in water conservation alone will total RMB35.8bn in 1998, about five or six times last year's figure, the newspaper said. The need for such spending has been increased by damage caused by floods, which have so far resulted in RMB166bn in damage, by official estimates.

Allocations of central government funds toward the projects will be supplemented by bank lending, mainly from the "big four" state banks, government economists said. To allow the banks to participate fully, authorities have raised the ceiling on loans by state banks to RMB1,000bn for the whole of 1998, from a previous RMB900bn.

China has so far shown little interest in drumming up foreign lending for the planned infrastructure projects, perhaps because it wants the projects to be examined quickly, analysts said. Speed of execution could, however, lead to considerable financial waste, poor planning and, ultimately, a reduction in investment returns.

Dahong Wang, head of project finance for China at SBC Warburg Dillon Read in Hong Kong, said that the participation of foreign banks could help spread risk through syndication and provide greater flexibility in project selection because foreigners were often willing to lend to projects with maturities longer than Chinese state banks are comfortable with.

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# HK tightens rules on short selling

**By Gordon Lewis in Hong Kong**

The Hong Kong Stock Exchange yesterday tightened short selling rules and introduced a temporary measure to restrict short selling of three heavyweight blue-chip shares.

Short selling, or selling shares not owned in the expectation of buying them at a lower price in the future, is legal in Hong Kong but has been backed up with borrowed shares. But this rule has to date been only loosely upheld and observed.

The stock exchange also proposed bringing back rules which require short sales to be made at the asking price rather than at the lower bid price, to prevent price manipulation.

The move to restrict short selling was seen as a response to the recent sharp fall in the Hang Seng index, which has been attributed to heavy short selling.

The exchange said it was not aware of any illegal short selling, but it was taking the precautionary measures to prevent further price manipulation.

The exchange also said it was considering other measures to restrict short selling, such as requiring short sellers to provide collateral.

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# economic growth ahead of poll

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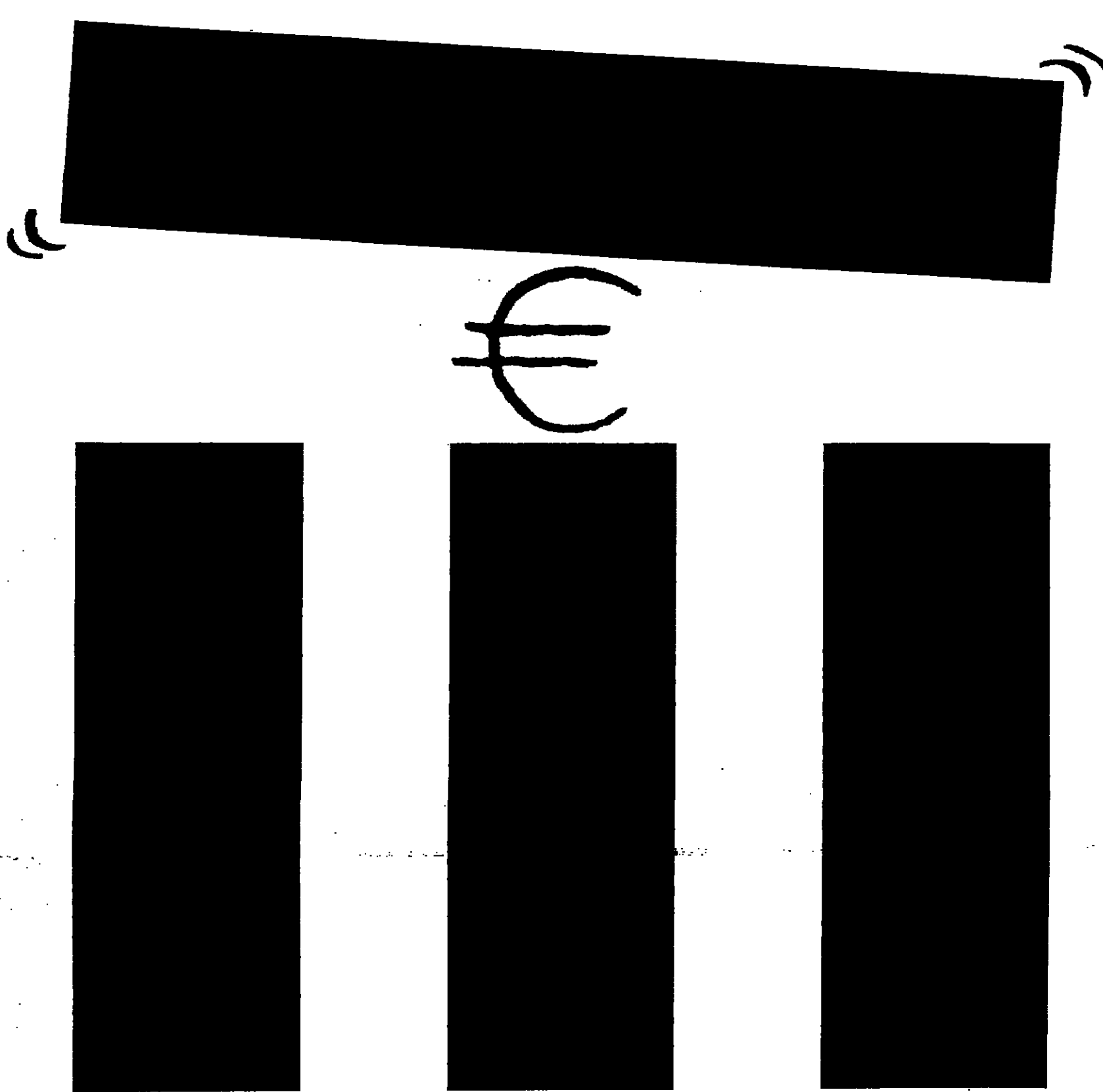
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## Two sides of the same euro.

Apart from being the new money of the Old World, the euro has another side that is perhaps even more significant.

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## BRITAIN

ADVISERS FIRMS ACCUSED OF 'GANGING UP' TO CUT LIABILITIES DENY THE CHARGE BUT ADMIT 'EYEBALL-TO-EYEBALL STUFF'

## Banks hit at accountants' M&amp;A tactics

By Jim Kelly in London

The UK's leading investment banks have protested to the Office of Fair Trading that the "Big Five" accountancy firms are working together to cut their legal liabilities when advising on mergers and acquisitions.

The London Investment Banking Association, which represents all the leading banks in the City, has told John Bridgman, director-general of the OFT, that the dispute is holding up transactions and adding to costs.

"The accountants seem to be co-ordinating among themselves the terms under which they will accept business," said Kit Farrow, director-general of LIBA.

Mr Farrow said that as a result of attempts to limit liability by contract, lawyers were holding up transactions in protracted arguments about the exact wording of "due diligence" documents.

"There is a certain amount of eyeball-to-eyeball stuff going on but we have not ganged up on them - there were talks some time ago,

and a moratorium agreed, but there have been some new cases recently," said one leading M & A accountant.

LIBA's complaint comes after the recent merger of Price Waterhouse and Coopers & Lybrand to form PwC - reducing choice among the big accountancy firms and increasing fears of uncompetitive practices among the global firms.

Middle-tier firms often lack the skills required for such work and shareholders and directors tend to

demand assurance from a top-flight firm.

The OFT could step into the dispute. But two similar confrontations between accountants and clients - over venture capital deals and bond issues - have been dealt with so far largely through negotiations between representative bodies.

The latest dispute comes against the background of continuing fears among the Big Five that they face unfair legal risks when offering clients the security of

unlimited legal liability if the transaction fails.

The UK government is about to allow accountants to form limited liability partnerships to reduce the risks and may make other concessions to eventually allow accountants to limit their liability when undertaking statutory audits.

In the meantime, the government has pressed the firms to attempt to limit their risks through their own efforts as well as by contract. This option is open to them in all the work they

do except the statutory audit opinion.

The idea of having standard wordings for due diligence is of interest. We look forward to discussing the issue with the LIBA," said Kieran Foynter, managing partner of PwC, the UK's biggest accountancy firm.

The firms believe the delays involved with contract negotiations have been exaggerated and that as they reduce the unfair liabilities they face, other professionals are resisting change in case their liabilities increase.

## Moslem exiles sanguine about anti-terror law

Men accused by their own governments of being involved in acts of terrorism stay calm as MPs consider new legislation

By Jimmy Burns and Roule Khalaf in London and Mark Huband in Cairo

For a man accused by his government of being an assassin and an apologist for Islamic militancy, Yasser al-Sirri seemed disarmingly at ease in London yesterday as he discussed the implications of the UK government's latest anti-terrorist legislation.

"I was seriously worried about being arrested or deported I wouldn't be here talking to you," Mr al-Sirri told the FT as he sat sharing tea with friends and an imam near the capital's Regent's Park Mosque.

A similar view was expressed at the same meeting by Abdallah Messali, a journalist and spokesman for the Front Islamique du Salut, who is wanted on suspicion of terrorism by the Algerian government.

Some UK civil liberty groups have warned that the proposed legislation - making it an offence to conspire in the UK to commit terrorist or other serious offences in a foreign country - could lead to the prosecution of a whole range of individuals living in exile in Britain.

Mr al-Sirri has been tried in absentia and sentenced to death by the Egyptian authorities for the attempted assassination in 1993 of Atef Sedki, the former Egyptian prime minister. Egypt has also accused Mr al-Sirri of funding Islamic terrorist groups and of supporting Osama bin Laden, who has been linked to the recent anti-American bombings in Africa.

Mr al-Sirri, who denies any terrorist activity, said yesterday that the military court which had condemned him had lacked legitimacy as he had not been offered a fair trial. "If the UK government

had tangible proof that I was a terrorist they would have moved against me by now," he said. He describes the London-based Islamic Observer Centre, which he runs, as a "registered charity defending human rights" and claims it, like the movements of other radicals, is permanently monitored by the UK security services.

Following the anti-US bomb attacks, Mr al-Sirri is one of a number of London-based exiles whose names have been widely reported as potentially likely to be inhibited by any new government legislation.

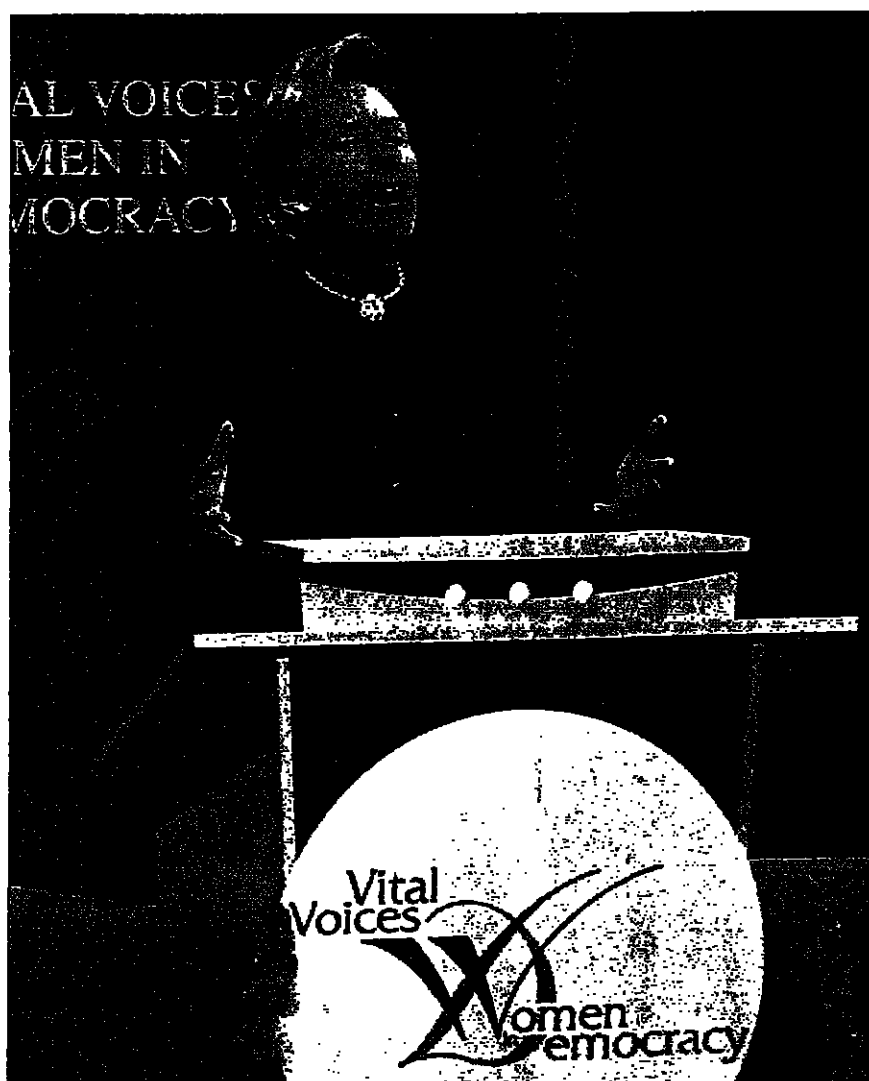
Mr Messali also denies any links with terrorism. He was confident yesterday that the UK would not go down the same path as France, which this week began the trial of 138 men and women for alleged links with Algerian Islamic terrorism.

"There is more respect for human rights here," Mr Messali said.

It is no secret in diplomatic circles that well before the attacks on US targets in Africa, the UK government had been under pressure - from not only Egypt, but also Algeria, Bahrain, Tunisia, Saudi Arabia, Israel and France - to move against certain sectors of the exiled Moslem community. Some diplomats in London were yesterday suggesting that the new UK law was essentially a political gesture also aimed at appeasing Washington.

But the sanguine attitude adopted by Mr al-Sirri and other Arab exiles in the UK is matched by the caution of UK government and security officials, whose job it will be to enforce the legislation.

A key question facing the security services and courts will be the extent to which evidence provided by other countries can be used



First lady: Hillary Clinton speaking to a women's conference in Belfast yesterday

Hillary Clinton yesterday began her third visit to Northern Ireland a day ahead of her husband, President Bill Clinton. She spoke at a women's conference as the parliament of the UK and the Republic of Ireland debated their governments' proposals for tougher laws against terrorist organisations. She said women had been a quiet catalyst for the Northern Ireland peace agree-

ment, but said they must play a bigger role in politics for real reconciliation to take root. "It was President Bill Clinton, women whose whispers of 'Enough' became a roar of voices that could no longer be ignored," she said.

She attended a reception with Jean Kennedy Smith, outgoing US ambassador to the Republic of Ireland and sister of the late President John F. Kennedy.

Rached Ghannouchi, moderate leader of Ennahda, the Tunisian Islamic movement granted political asylum in the UK, provides an example. For years Tunisia has tried to put pressure on the UK government to curb his movement's fund-raising, although he has never been found to have broken UK law.

European government officials and moderate Moslem leaders in the UK say many of the more outspoken radicals in London are simply small-fry propagandists without any substantial influence. "They are not cau-

tious with words but they are cautious with their actions," said one London-based diplomat. Some Moslem radicals named in recent reports in the UK media were yesterday threatening legal action against those who may have suggested they condoned terrorism.

Security officials say the more serious potential targets under the new legislation remain unnamed publicly and the focus of future investigation will be on certain fund-raising activities with a clear link to international terrorism.

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## Challenge to KPMG role in sultanate probe

By Jim Kelly in London

Prince Jefri, the disaffected younger brother of the Sultan of Brunei, yesterday sought to stop the accountancy firm KPMG taking part in "Project Gemma" - an investigation into the troubled sultanate's finances that could lead to the prince facing litigation.

The prince claimed KPMG might inadvertently let confidential information leak to the Brunei authorities because the firm once worked for him on "Project Lucy" - a high-profile court case that gave the accountants wide access to his personal affairs.

Mr Gordon Pollock, a lawyer for Prince Jefri, told the High Court in London that 100 staff from KPMG were working in connection with Project Gemma and that as some had also worked on Project Lucy there was a real and urgent danger that private information might leak by accident.

"Our main concern is that there is a substantial amount of knowledge in the hands of a substantial number of people," he said. The point was, he added, whether KPMG should continue to act in the investigation when Prince Jefri could be sued as a result.

Prince Jefri was removed last month as head of the Brunei Investment Agency, which looks after the family's overseas assets - valued at up to \$80bn.

A fierce family feud has broken out in the sultanate over the mismanagement of funds that could have led to the loss of billions of pounds.

Project Lucy is understood to refer to the case in which Prince Jefri faced accusations from the Manoukian brothers - former friends and emissaries - of failing to honour deals.

The case was settled out of court. KPMG acted for the prince, reconstructing his financial affairs between 1981 and 1995.

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## NEWS DIGEST

## PRIVATISATIONS

## MPs deplore 'mistakes' in sales of state assets

Shares should normally be sold in stages when privatising government-owned businesses to ensure the taxpayer receives full value for money, the Public Accounts Committee of the House of Commons said yesterday. The government should also always consider a clawback arrangement, in case profits from the newly privatised businesses prove much higher than expected. The warning to ministers comes as the government plans to continue the previous Conservative administration's policy of privatisation, aiming to raise £4bn (\$6.6bn) from asset sales each year over the next three years. Sales are expected to include the air traffic control system, the state-run betting organisation and the Commonwealth Development Fund. The London Underground is due to be partially privatised. The PAC's special report said it was vital the lessons of the past 20 years of privatisation were learned. Mistakes had been made which had seen the taxpayer suffer serious loss of value. Nicholas Timmins, London

## POLLUTION BY COMPANIES

## Watchdog urges bigger fines

The Environment Agency yesterday called for bigger fines for companies that pollute the environment. Ed Gallagher, chief executive, told the agency's annual meeting he was "continually disappointed" by the low level of fines, which average £2,000 (\$3,300) per tonne for chemical pollutants. "These fines of a few thousands pounds are no deterrent to multi-million-pound companies; we want fines that reflect the seriousness of the crime," he said. The agency said there was a big variation in the attitude of magistrates. It is concerned that the relatively lenient fines imposed by some undermines the tough action it takes to secure prosecutions. British Nuclear Fuels was fined £20,000 yesterday after admitting it discharged more than twice the permitted amount of chemicals into a river. The state-owned company was also ordered to pay £19,415 costs to the Environment Agency. The agency said the material was not radioactive. Vanessa Houlder, London

## PACCAR TRUCKS

## Leyland to make Daf vehicles

Leyland Trucks in north-west England is to add production of 4,500 Daf trucks a year to its assembly lines. Leyland Trucks and Daf, which has plants in the Netherlands and Belgium, are owned by Paccar, the US truck group. The move to add Leyland to Daf's existing capacity at Eindhoven in the Netherlands and Westerlo in Belgium reflects growing demand for Daf trucks throughout Europe. All three plants are being expanded to cope with the higher demand under a £15m (\$25m) investment programme. John Griffiths, London

## WIND ENERGY

## Support for fledgling industry

The UK's nascent offshore wind energy industry was given a boost yesterday when John Battle, the energy minister, launched a consultation paper on how government can best support the technology. Ministers are asking for views on how to incorporate offshore wind energy into the Non-Fossil Fuel Obligation Order process, the government's main vehicle for supporting "renewable" forms of energy in their early stages. Mr Battle told a conference organised by the British Wind Energy Association in Cardiff, the Welsh capital, that offshore wind was one of the UK's greatest untapped natural, sustainable and pollution-free resources. "The main objective of supporting offshore wind energy under the NFFO is to make a substantial and cost-effective contribution to future electricity needs," he said. Nick Goodall, chief executive of the British Wind Energy Association, welcomed the move. "This is a significant step," he said. Vanessa Houlder, London

## COMMONWEALTH GAMES

## New stadium for Manchester

The northern England city of Manchester has been awarded £90m (\$148m) to build a stadium for the 2002 Commonwealth Games. It could eventually be the new home of Manchester City football club. Confirmation of the funds for the 45,000-50,000 seat stadium means Manchester now has the money to complete its Commonwealth Games building programme. Some £22m had been committed for a new swimming complex and other facilities. The new investment - £77m of which is coming from National Lottery funds and £13m from the city's municipal authority - ends doubt over the status of the Commonwealth Games stadium. Patrick Harverson, London

## Trade mission to Russia to go ahead

By Kevin Done

East Europe Correspondent

The UK government's Department of Trade and Industry is pressing ahead with its biggest ever trade exhibition in Russia despite the country's continuing financial and political turmoil. Brian Wilson, UK trade minister, said that "in view of the desire of British businesses to remain engaged

with Russia, it would be a mistake for us to withdraw valuable support at the first sign of trouble."

More than 130 companies are due to take part in the "Britain - Window for Business" trade fair, to be held at the LenExpo centre in St Petersburg next week. The DTI said yesterday that none of the exhibitors had pulled out as a result of recent events in Russia.

Most of the UK companies attending the trade fair are from the construction, education and training, food and drink and retail sectors.

"Few people would ever have said that Russia is an easy place in which to do business," said Mr Wilson. "Nevertheless from past experience those that enter a developing market early tend to make the greatest gains in the long run."

Russia is the UK's 25th largest export market, with the main products including telecommunications equipment, industrial and office machinery, essential oils, photographic apparatus and pharmaceuticals. UK exports to Russia rose by 22 per cent to £1.2bn (\$1.96bn) last year, and there was a further increase of 19 per cent in the first five months of 1998.

Russian exports to the UK

totalled £1.5bn last year. UK credit guarantees cover is still available for Russia, and Russian payments to the Export Credit Guarantee Department are up-to-date, the DTI said yesterday.

Mr Wilson said that his planned meeting with Yuri Maslyukov, Russian trade minister, was no longer expected to take place following the sacking of the Russian government. The

## Stores chief heads back to the laboratory

Lord Sainsbury, former chairman of the retail group, is now minister for science. Clive Cookson discusses his mission

Lord Sainsbury of Turville made a dramatic career change this summer. After 35 years working for J Sainsbury, the family retail company, he retired early as chairman and - at 57 - joined the government as minister for science.

David Sainsbury, as he prefers to be called, will make his first appearance in his new role at the British Association's annual science festival next week.

Scientists will discover that the man representing their interests is an intelligent listener who may turn out to be very different from their idea of a supermarket tycoon - let alone one of the richest men in Britain. His personal fortune is estimated at £1.8bn (\$2.1bn).

Lord Sainsbury is determined to make a success of a

job he regards as "the best in government". He says: "It brings together in a very exciting way the different strands of my life: the interest in science, the involvement in business and the long-standing interest in politics."

Scientists are still glowing after the government's comprehensive public spending review - announced just before Lord Sainsbury's appointment in July - which awarded university research an extra £1.1bn over the next three years. Peter Cotgreave, director of Save British Science, the research pressure group, says: "The feeling is more positive today than at any time in the [12-year] history of SBS."

Those who have met Lord Sainsbury or worked with the Gatsby Foundation, his



Lord Sainsbury: long interest in centre-left politics

research and science education in the UK.

"I went to Cambridge in 1969 as a historian but it was a very exciting time in the sciences and a lot of my friends turned out to be scientists," he says. "I changed half way through my time there and read psychology for two years."

He joined J. Sainsbury after Cambridge and rose rapidly through what was then a family-owned regional grocery chain to become finance director in 1973.

He succeeded John (now Lord Sainsbury of Preston Candover) as chairman in 1992.

David Sainsbury developed his interests in centre-left politics throughout his time in charge at Sainsbury's and financed the ill-fated Social Democratic party in the 1980s. When that collapsed, he licked his wounds and switched allegiance to Tony Blair and "New" Labour. He

reportedly donated more than £1m to the party before last year's general election and, following the party's victory, became a lord.

He put money into science at the same time, through his Gatsby Foundation - whimsically named after Scott Fitzgerald's 1925's playboy. The trust's two biggest donations have been in fields of particular interest to the donor: plant biology and cognitive neuroscience.

One ambition as a minister is to help scientists communicate the excitement of their discoveries and promote public understanding of science. But Lord Sainsbury's first priority "will be to renew the science base and reverse the neglect it has suffered in recent years."

He will also urge industry to take advantage of academic research and "make sure that scientific information is used properly right across government."



## ADJOURNED SPECIAL ASSEMBLY OF THE MINORITY SHAREHOLDERS OF THE HELLENIC PETROLEUM S.A.

(REGISTRATION NUMBER 2443/06/8/86/23)

The Special Assembly of the Minority Shareholders of the HELLENIC PETROLEUM S.A. which had been scheduled for 28 August 1998 for the selection of two (2) representatives of the minority to the Board of Directors of HELLENIC PETROLEUM S.A. was cancelled due to the lack of quorum.

Pursuant to Law 2190/20 and the Company's Articles of Association, and following the decision of the Board of Directors of 26 August 1998, the shareholders of HELLENIC PETROLEUM S.A. are hereby invited to participate in the adjourned Special Assembly held in Athens on Tuesday 15/9/1998, at 12:00 p.m., in the Hilton Hotel, 46 V. Solas's Ave. (as per permit K2-7241/10/7-98 of the S.A. & Credit office of the General Secretariat/Ministry of Development) to discuss and decide on the following only item in the agenda:

Election of two (2) representatives of the minority Shareholders to the Board of Directors of HELLENIC PETROLEUM S.A., pursuant to Article Seventeen of Law 2593/98, in combination with Article 22 of the Company's Articles of Association.

In compliance with the Law and the Company's Articles of Association to participate in person, or by proxy, in the said adjourned Special Assembly Shareholders must deposit their share certificates of any bank in Greece or abroad, the Consignations and Loans Fund, or the Hellenic Petroleum's cashier office (337-339 Messongion Ave, Helleniki), at least five (5) calendar days before the appointed date for the adjourned Special Assembly, i.e. until 9 September 1998.

By the same date Shareholders must have also deposited the relevant share depositary receipts, as well as the proxy form, at Hellenic Petroleum's Head Office, 357-359 Messongion Ave, Helleniki. Receipts will be accepted daily between 9:00 a.m. and 2:00 p.m. (tel. 01-6501.322).

Finally, to facilitate the process, as they join the adjourned Special Assembly, Shareholders are requested to propose candidates for the election, if they so wish. Each Shareholder may propose up to two (2) candidates.

By authorization of the Board of Directors

EV. IZELIAS  
Chairman & Managing Director

Athens 28.8.1998

هكمن النصل



## CINEMA

## Irony – in spades

Jane Austen would approve, writes Martin Hoyle

*The Last Days of Disco*, a recent delight at the Edinburgh Film Festival, arrives on general release with welcome promptness. This is Whit Stillman's third chronicle of well-educated, well-heeled, earnestly articulate and eagerly self-analytic young Americans, their Ivy League education over and the expected easy road to success – law, publishing, the rather derided advertising – turning out to be bumpier than expected.

As writer and director, Stillman magnificently refutes Emma Thompson's famous – or infamous – remark about Americans lacking irony. His style is wicked, delicious, yielding layer after layer of straight-faced comment, devastatingly accurate but not unkind. The name that immediately leaps to mind with his first feature, *Metropolitan*, with its discussions of principle and dissections of motives, was Jane Austen. The comparison occurs again. When Americans have irony, they have it in spades.

The early 1980s: clubbing is the glittering social imperative, and we focus on the friends, colleagues and (occasional) lovers of two unlikely apartment sharers. Spoilt Charlotte is brightly, crassly solipsistic; she takes under her wing the dowdy Alice, self-effacing, observant, first patronised, then resented by her flashy flatmate. Read Fanny Price in *Mansfield Park*.

Alice gets her man, of course. But the specifically 20th-century ironies – Aus-

ten updated – include the virginal Alice's infection with a sexual disease after her very first love-making. Other wickedly observed follies de nos jours are spot-on: the yuppie's collection of *Scrooge McDuck* comics, glass-encased and worth a fortune; the discussion of Disney's cartoon *Lady and the Tramp*, solemnly couched in lit. crit. tones; the earnest attribution of the

THE LAST DAYS OF DISCO  
Witt Stillman

THE LAND GIRLS

David Leland

HE GOT GAME

Spike Lee

SPECIES 2

Peter Medak

environmental movement to the re-issue of *Bambi* in the 1960s. Like Austen, Whitman is merciless; but like Austen, he is funny, forgiving and never cruel.

The film is immaculately acted, notably by Britain's Kate Beckinsale as the shrilly self-centred Charlotte, horribly convincing down to the perfect American accent; Chloë Sevigny, just right as the watchful plain Jane, Alice; and Matt Keeslar as an earnest young lawyer with political aspirations. Miss Austen would approve.

Apart from colour, sexual frankness and the odd swear word, *The Land Girls* slips blandly into the tradition of those post-war British films that portrayed the plucky lives of ordinary people in momentous times: *The*

*Weaker Sex*, for example, or *People Like Us*. You half expect Phyllis Calvert or Anne Crawford, turbaned and shoulder-padded, to stride their clipped way through a still neatly hierarchic society replete with chirpy cockneys, taffs, jocks and (innocent days) paddies. In fact you get Anna Friel as a stereotype earthy northerner, Rachel Weiss with a not too convincing posh accent, and Catherine McCormack ending up in the most hideously-cut New Look skirt ever to make austerity look good after all. Wartime members of the Women's Land Army, they work on a Dorset farm, soon melting the heart of their curmudgeonly employer (Tom Georgeson), allied with his warm-hearted wife (Maureen O'Brien).

David Leland's treatment of potentially fascinating material is wishy-washy, merely hinting at the social changes shimmering beneath the surface and opting instead for lazy clichés. Typical of the skin-deep approach is the countryside shot (when in doubt, go picturesque) with a glimpse of what look like serried ranks of post-war Forestry Commission conifer plantations.

Acting honours in this amiable, predictable and eminently forgettable cop-out go to McCormack's luminously reticent mixture of gravity and repressed sensuality, and Steven Mackintosh as the farmer's son, proving yet again to be the most versatile of our young actors since he burst before the public as a wacky American teenager in a Neil Simon play at the National Theatre a decade ago.

Spike Lee's treatment of



Spoilt Charlotte and dowdy Alice: Kate Beckinsale and Chloë Sevigny in 'The Last Days of Disco'

Afro-American life is becoming – mellow? more cynical? Certainly less strident. The power that comes of restraint is illustrated by *He Got Game*, one of those convict-let-out-on-special-mission against-the-clock themes. Here the convicted killer (Denzel Washington) – even Lee's casting is mainstream establishment these days) has to convince his estranged son, a potential basketball champ, to sign for the state governor's favourite college. (More of *Disco's* latent theme of popular culture as a metaphor of American society.)

The lengths to which uni-

versities will go to tempt a promising athlete to their ranks are staggering. Here the sexual emphasis lends a new meaning to the term "head-hunting". The film is stylish, garish, moving (in its depiction of father-son strains), slightly surreal: very Spike Lee. The use of Aaron Copland's resolute orchestral textures on the sound track add a dimension sometimes noble, sometimes merely portentous.

The Mars landing is shown on television to a delirious America. But in a mental hospital an old man screams "I told him not to go!" We

soon find out why in *Species 2*, directed by Peter Medak who once made such accomplished movies as *Nightmares* and *A Day in the Death of Joe Egg*. His new offering is funny, though not enough to persuade you that the humour is all intentional.

Monstrous DNA from Mars has infected a returning astronaut, leaving him with the unstoppable urge to mate with every available female. Presumably for fear that this renders him indistinguishable from the president of the US, a manhunt is soon on. He leaves a trail of bloody female corpses (nasty things pop out of their tum-

mies after sex) as he populates America with his spawn of uncannily silent instant children (shades of *Village of the Damned*).

Meanwhile Eve, the half-human product of experimentation with the selfsame alien DNA (see *Species 1*, or rather don't languish in the lab, a Nordic goddess with the bod of an athlete and the hair of Mariella Frostrup. Despite the care lavished on her by Doc Laura (Marg Helgenberger), with many a suppressed Sapphic glance, she goes ape at the faintest hint of testosterone. And when she becomes telepathically aware of a like

creature rampant on earth there is no holding her until the two meet and mate in a flurry of gruesome special effects that do not exclude a faintly pornographic moment.

There is much post-*Alien* eruption from human stomachs of wormy tentacles and bloody viscera. "It's just off!!!" cry the witnesses. Highlights include the scientists fighting the extra-terrestrial threat with flit-guns and tracking the mutant fugitive through a supermarket via the visionary Eve's psychic directions ("Aisle one! Fruit and vegetables!"). As they say, it's just offal.

## Oh no, baby, not you...

## THEATRE

## ALASTAIR MACAULAY

The Play About The Baby

Almeida Theatre, London W1

Terminally and irritatingly arch from start to finish, Edward Albee's new play is self-conscious, self-congratulatory, overblown, meagre. Its title, *The Play About the Baby*, is a misnomer: this is a play about reality and illusion, about make believe and fact, and manipulation in theatre and in life. Is there a baby? Who says there is a baby? Who says there isn't a baby? And why do they say so?

Decades ago, Michael Frayn wrote a sketch (performed in *The Secret Policeman's Ball* by Eleanor Bron and Peter Cook) in which a wife (her stomach bulging hugely) began by telling her husband, "Darling, I'm going to have a baby." Pause. Husband (wearily): "How many times do I have to tell you, Penelope. It's not a baby, it's a balloon." No, it's a baby; no, it's a balloon; and so on.

Finally, he put a pin into her midriff, which promptly burst. It was a balloon. Appalled, she simply exclaimed "Frick!" The comedy of this expressed so much – the need for, and the destruction

of, illusion; the fascistic masculine versus the imaginative feminine; the need to win arguments etc – and it lasted maybe one minute, probably less. Albee's play takes two hours (interval included) to cover the same ground less wittily, and, actually, less touchingly.

You can see – you can't miss – the kind of play Albee wants to write: the baroque kind, where theatrical illusion itself is the subject, treated from more angles than one. It is a genre I love, as handled by Lope de Vega (*The Great Pretenders*), Corneille (*The Illusion*), through to Pirandello (*Six Characters in Search of an Author*) and De Filippo (*La Grande Magia*).

But Albee's version is mere camp. There is no depth to his illusion – even when his characters talk about the sex they have been having, they keep commenting playfully on themselves and much of the time they merely talk about the fact that they are talking about something – and no poignancy.

I smiled once when Frances de la Tour, amid an endlessly meandering spiel to us says, "I was in the touchy stages of a soufflé." But the same spiel, like the whole play, is stuffed with gable-like "that's the first thing I want you to know – well, the



Palpably insincere: Alan Howard and Frances de la Tour

second, actually, the first being... having been...

Thanks (but not many thanks) largely to Maggie Smith and the Almeida, London has had quite an Albee renaissance in the last four years. His writing, I find, does terrible things to actors: it makes them as precious, as unspontaneous, as his writing. Thus it is in Howard Davies' staging of this world premiere.

Frances de la Tour, whom I have often admired so much, is

even when at her best here, like Maggie Smith at her worst; knowing, tricky, desiccated. Alan Howard gives one of those niggly insincere performances, he knows best how to perform: would you buy a used, or unused, play from this man? Zoë Wauters and Rupert Penry-Jones contribute a larger share of artifice than is agreeable to behold in still young actors.

Sponsored by AT&T.

## EDINBURGH FESTIVAL CONTEMPORARY MUSIC

## Boulez adds to the score

Last weekend, the 73-year-old Pierre Boulez got a warm celebration at Edinburgh. On Saturday he conducted the Ensemble Inter-contemporain – magisterially – in several of the 20th-century pieces he admires most, and also in some key smaller works of his own. On Sunday he sat back whilst Martyn Brabbins led the BBC Scottish Symphony through his luxurious *Pli selon pli* (early 1960s, composed before he began to conduct Wagner; often revised, rarely revived; and again while a later concert by David Robertson and the Ensemble culminated in the "premiere" of his new *Sur Incises*).

That made a profound and bracing impact. Boulez is infernally driven to re-composing; not because he thinks he can rewrite the previous version "better", but because fresh possibilities for developing it crowd in upon his mind. When I heard the Paris premiere of *Pli selon pli* in the early 1960s, its first movement "Don" was still a solo piano piece. Since then, "Don" has acquired a richly suggestive orchestra, matching and vying with intricate elaborations from the orchestra.

Boulez recognises no "closed" structures nowadays. No doubt he thinks the very idea of a "perfect" work a mere Romantic ideal, wrong in theory and wrong in practice. In 1994 he composed *Incises* as a six-minute piano

piece, in toccata-style; *Sur Incises* is now an imposing, dramatic work, almost three-quarters of an hour long – for three aggressive pianos, three harps and three busy percussionists – which still contains the original piece, but also refracts it through innumerable angles.

In fact Boulez is already composing a further "transition" for *Sur Incises*, but what we heard sounded complete enough. Unusually for Boulez, the secondary instruments often just reinforce the piano-parts: extra emphases, expanded resonances. The furious toccata-writing of the original, crackling with repeated notes, spreads to marimbas and vibraphone.

A steel drum makes an eerie entry, and at the end slow-struck chimes recall the close of Stravinsky's seminal *Les Noces* (which had four pianos and six percussionists). At various points Boulez seems also to remember his two-piano *Structures* from the 1950s, and probably Stockhausen's comparable four-de-force, *Mantra*. *Sur Incises*, however, bristles with a character of its

own: incisive indeed, and headlong, and yet rather "classical" in its controlled form.

Amid the lush textures of *Pli selon pli* – surely nothing in Boulez is so ravishing as his music for multiple flutes and cellos in the fourth movement – Valérie Anderson carried the soprano line with lovely authority. Not just true pitch (in this work a considerable feat); but unshakable assurance, and keen expressive perception. Martyn Brabbins and the BBC Scots gave her sterling support, very well prepared.

The concert earlier that Boulez conducted was enhanced by another North American soprano, Laura Aikin. She was charming in songs by Stravinsky; and in Boulez's two *Improvisations sur Mallarmé*, the precursors of the second and third movements of *Pli selon pli*, her pretty, liquid tone was a winning asset. Why did we ever think those pieces "difficult"?

New to me was the 1993 *Derive II* (*Derive I* is almost a party-piece now), a tardy tribute to Elliott Carter for his 80th birthday. Sonorous but spiky and a bit fierce, unlike *Derive I*, when we heard *Sur Incises* the next day, it became suddenly clear where *Derive II* had been going to. In Boulez's hands, small chips constantly get turned into edifices.

David Murray

## INTERNATIONAL

## Arts Guide

## AMSTERDAM

CONCERT  
Concertgebouw  
Tel: 31-20-675 4411  
Los Angeles Philharmonic:  
conducted by Esa-Pekka Salonen in works by Adams, Mahler and Sibelius; Sep 8

OPERA  
Netherlands Opera, Het Muziektheater  
Tel: 31-20-551 8911  
Götterdämmerung: by Wagner.  
New staging by Pierre Audi.  
conducted by Hartmut Haenchen. Cast includes Heinz Kuche, Jeannine Altmeyer and Henk Smit; Sep 8

BADEN-BADEN  
CONCERT  
Festspielhaus  
Chicago Symphony Orchestra:  
conducted by Daniel Barenboim in works by Schoenberg and Mahler; Sep 9

BEIJING  
OPERA

The Forbidden City  
Tel: 44-171-589 8212  
Turandot: by Puccini. Conducted by Zubin Mehta in a staging by Zhang Yimou. With the Maggio Musicale Fiorentino; Sep 5, 6, 7, 8, 9

BIRMINGHAM  
CONCERTS  
Symphony Hall  
Tel: 44-121-212 3333  
Chicago Symphony Orchestra:  
conducted by Daniel Barenboim in works by Strauss, Berg and Tchaikovsky; Sep 5  
Czech Philharmonic: in a programme of works by Janáček, Beethoven and Dvorák; Sep 9

BRUSSELS  
CONCERTS  
Palais des Beaux Arts  
Chicago Symphony Orchestra:  
conducted by Daniel Barenboim in works by Berg and Mahler; Sep 7  
Chicago Symphony Orchestra:  
conducted by Daniel Barenboim in works by Wagner, Schoenberg and Tchaikovsky; Sep 8

DUSSELDORF  
CONCERTS  
Tonhalle  
Los Angeles Philharmonic:  
conducted by Esa-Pekka Salonen in works by Copland, Sibelius and Stravinsky; Sep 9

EDINBURGH  
OPERA

Edinburgh International Festival  
Tel: 44-131-473 2000  
www.edinburgh.co.uk  
Dallor: by Smetana. New Scottish Opera production by David Pountney. With sets by Ralph Koltai and costumes by Sue Williamson. The conductor is Richard Armstrong; Edinburgh Festival Theatre; Sep 3, 5  
Libretto: by Smetana. Concert performance by the BBC Scottish Symphony Orchestra and the Edinburgh Festival Chorus, conducted by Oliver von Dohnányi; Sep 4

THEATRE  
Edinburgh International Festival  
Tel: 44-131-473 2000  
www.edinburgh.co.uk  
Caligula: by Albert Camus.  
Dutch performance with English subtitles, directed by Ivo van Hove; the Edinburgh Playhouse; Sep 3  
More Stately Mansions: by Eugene O'Neill. Adapted by Karl Ragnar Gierow from O'Neill's unfinished manuscript. Ivo van Hove directs the New York Theatre Workshop; Royal Lyceum Theatre; Sep 3, 4, 5  
Phédre: by Racine. New Théâtre Vidy-Lausanne production, directed by Luc Bondy. Valérie Drévillé plays the title role; King's Theatre; Sep 3, 4, 5

FRANKFURT  
OPERA  
Opera Frankfurt  
Tel: 49-69-21237 999  
www.frankfurt-business.de/oper  
La Traviata: by Verdi. In a staging

by Axel Corti; Sep 4, 6

LONDON  
CONCERTS  
BBC Proms, Royal Albert Hall  
Tel: 44-171-589 8212  
BBC Singers: conducted by Jane Glover in works by Britten, Kodály, Elgar, Szymanowski and Pärt. With the Choirs of Guildford Cathedral; Sep 4  
Bournemouth Symphony Orchestra: conducted by Yakov Kreizberg in works by Glinka, Rachmaninov and Schmidt. With piano soloist Arkady Volodkov; Sep 9  
Chicago Symphony Orchestra: conducted by Daniel Barenboim in the European premiere of Harrison Birtwistle's *Exodus*. The programme is completed by Mahler's Symphony No. 5; Sep 3  
Chicago Symphony Orchestra: conducted by Daniel Barenboim in works by Strauss, Berg and Tchaikovsky; Sep 4  
Czech Philharmonic: conducted by Charles Mackerras in works by Janáček and Mahler; Sep 7  
Czech Philharmonic: conducted by Libor Pešek in works by Dvořák, Szymanowski and Brahms. With violin soloist Raphael Oleg; Sep 8  
European Union Youth Orchestra: conducted by Vladimir Ashkenazy in works by Berg and Strauss. With soprano Barbara Bonney; Sep 5  
London Symphony Orchestra and Chorus: conducted by Colin Davis in works by Beethoven (arr. Colin Davis and David Matthews)

and Tippett. With soloists including bass John Tomlinson; Sep 6

LUCERNE  
CONCERTS  
International Festival of Music  
Tel: 41-41-226 4400  
www.lucernefestival.ch/  
Amsterdam Baroque Orchestra: Ton Koopman conducts works by Mozart. With soprano Lisa Larsson, contralto Elisabeth von Magnus, tenor Paul Agnew and bass Klaus Mertens; Sep 6  
BBC Symphony Orchestra: Andrew Davis conducts works by Ravel, Mozart, Walton and Elgar. With pianist Richard Goode; Sep 7  
Leipzig Gewandhaus Orchestra: in works by Honegger and Bruckner. The conductor is Herbert Blomstedt; Sep 8  
Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Copland, Salonen and Stravinsky; Sep 3  
Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Strauss and Bruckner. With soprano Gundula Janowitz; Sep 4  
Royal Concertgebouw Orchestra: conducted by Riccardo Chailly in works by Debussy and Varèse. With soprano Sarah Leonard; Sep 5

NEW YORK  
EXHIBITION  
Guggenheim Museum  
Tel: 1-212-423 3500  
www.guggenheim.org

Vilhelm Hammershøi (1864-1916): Danish Painter of Solitude and Light. Retrospective comprising 60 works by this relatively unknown contemporary of Munch; to Sep 7

SAN FRANCISCO  
EXHIBITIONS  
San Francisco Museum of Modern Art  
www.sfmoma.org  
Alexander Calder (1898-1976): around 250 works, among them some of the best examples of Calder's formally innovative sculpture. Alongside the mobiles and stables are selected paintings, drawings and jewellery; from Sep 4 to Dec 1

TOKYO  
CONCERTS  
Suntory Hall  
Tel: 81-3-3584 9999  
Japan Philharmonic: conducted by Gintaro Saito in Rossini's *Petite Messe Solennelle*; Sep 6  
Japan Shinsai Symphony Orchestra: conducted by Antonello Allemani in works by Rossini; Sep 5  
Orchestra Filarmonica della Scala: conducted by Riccardo Muti in works by Verdi; Sep 3  
Tokyo Metropolitan Symphony Orchestra: conducted by Ken Takasaki in works by Reger and Beethoven; Sep 4

EXHIBITION  
Museum of Contemporary Art  
Tel: 81-3-5245 4111  
At the End of the Century: One

Hundred Years of Architecture. Touring of dramatic change, from early 20th century colonial architecture through modernism and the Bauhaus to the rise of theory and skyscrapers; to Sep 6

TURIN  
CONCERT  
Lingotto Fiere  
Los Angeles Philharmonic: conducted by Esa-Pekka Salonen in works by Schoenberg and Bruckner; Sep 7

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EUROPEAN CABLE AND SATELLITE BUSINESS TV  
CNN International  
Monday to Friday, GMT:

06:30: *Moneyline with Lou Dobbs*  
13:30: *Business Asia*  
19:30: *World Business Today*  
22:00: *World Business Today Update*

Business/Market Reports:  
05:07: 06:07: 07:07: 08:20: 09:20: 10:20: 11:20: 11:32: 12:20: 13:20: 14:20:  
At 08:20 Tanya Bickert of FTV reports live from Lufft as the London market opens.





SAMUEL BRITTAN  
ECONOMIC VIEWPOINT

## The three heresies

The prevailing maxims of international statesmanship need critical examination if they are not to become platitudes

The British political philosopher John Stuart Mill, arguing for free speech, said that even true doctrines needed critical examination. Otherwise they become stale and meaningless. It is in this spirit that I want to examine three heretical views that take issue with widely accepted maxims of political economy.

The first is that the operations of the International Monetary Fund to bail out countries in crisis do not help stabilise the world financial system. The argument can be stated in two words: moral hazard. The best definition I have seen comes from Charles Calomiris of Columbia. "Moral hazard arises from bankers who know that future gains from taking on risks will be private, but believe that losses will be borne by taxpayers."

The IMF and World Bank document some 90 episodes of severe banking crises in developing countries since 1982. In more than 20, the domestic bail-out costs exceeded 10 per cent of gross domestic product. This is a perverse internal transfer.

The IMF, the US government and other international institutions have aggravated the problem in two ways: by lending legitimacy to domestic bail-outs by encouraging the taxation of the domestic middle class to repay international credit; and by insulating foreign creditors, especially banks, from losses.

Many US banks and businesses would lose money without the current IMF-Asian bail-outs. Rescue operations, in Prof Calomiris's words, "weaken democracy, strengthen corruption, aggravate inequality and poverty and foster systemic financial

instability and industrial inefficiency".

The second heresy has been well articulated by a dissident French economist, Pascal Salin of the University of Paris. Prof Salin was an opponent of the euro. But now it has arrived, he thinks its best hope is if the bureaucrats and politicians leave it alone. He has denied that a single currency requires stronger co-ordination of economic policies or large public transfers to countries adversely hit by monetary integration.

The main effect of substituting the single currency for national ones will be to synchronise European business cycles. It will not affect the supply-side rigidities responsible for structural unemployment. "Instead of harmonising taxation, rules and laws, fiscal and wages policies, there ought to be competition between European governments in these areas," he says.

The conventional wisdom is that special measures are

required to take the place of exchange rate adjustments for a country that experiences a real shock. But Prof Salin reminds us that a real shock is something that changes the relative market prices of different products. These relative price changes cannot be avoided by printing more money or by fiscal transfers.

In other words, the less that the Euro-X committee - on which the French government has set such store - does, the better. And British ministers should stop shedding tears about their exclusion from this committee, which ideally should shut shop.

The third heresy is that the countries of central and eastern Europe are wrong to give such high priority to joining the European Union. An eloquent statement of the case has been made in a pamphlet by Helen Samuely and Bill Jamieson.

The authors point out that the drive to enlarge the European Union has added to needless divisions among

the former communist countries. Estonia, which is among the advanced guard of first applicants, has been hived off from the two other Baltic states, Lithuania and Latvia, frustrating potentially helpful economic arrangements between these countries. On the authors' analysis, the EU is an anti-free market organisation, which can only delay the emancipation of these countries from their communist past.

The most convincing of the three heresies is the first, that we should end the automatic rescues of third world countries hit by currency crises. The history of capitalism has always involved a series of defaults and debt restructurings, which borrower and creditor have a common interest in undertaking. The knowledge that the western taxpayer will underwrite rescue operations only diminishes the sense of responsibility of the immediate participants.

Lenders of last resort nowadays have to cross national frontiers. The problem remains that of trying to support banking systems while penalising the managers and shareholders of insolvent institutions. The process is likely to be more successful if freed from the task of supporting governments that may have set off the chain reaction. Russia is in a different category and needs to be assessed by political rather than technical criteria.

The second heresy on the harmful irrelevance of EU economic co-ordination is 90 per cent right. But simply leaving the European central bank to get on with it will not be enough. Like so many European monetarists, Prof Salin overlooks the fact that market and less of a paradise for bureaucrats and cartelmongers.

eastern Europe should steer clear of the EU. But many political leaders from these countries obviously feel that their emancipation from the past will not be fully completed until they form part of the main political organisation that holds western Europe together, in however fragile and imperfect a way.

There is one key economic question. As the authors of the pamphlet say, the great advantage that the former communist countries have is the supply of trained labour with lower wages and social overheads than the highly unionised labour forces of western Europe. But this cuts both ways. Surely, European politicians, trade unionists and corporate leaders would be in a much better position to maintain barriers against products from their eastern neighbours - not to speak of inward migration - if these neighbours were excluded from the Union.

Finally, there is a more selfish point. Those of us who do not regard the idea of a free trade area as an insult and who dislike the dirigiste thinking behind many aspects of the EU have been looking forward to enlargement as a prod towards reform. It would be prohibitively expensive to extend the Common Agricultural Policy to a country like Poland. Nor could structural funds for central and eastern Europe simply be added on to those already provided for southern Italy, Spain, Portugal and Ireland.

Despite all its faults, the EU is the only EU we have. Our best hope will be common members will make common cause with reformers among existing members to make it more of a genuine single market and less of a paradise for bureaucrats and cartelmongers.

\* *The IMF's Imprudent Role as Lender of Last Resort*, *Cato Journal*, May 1998  
\* *Now That The Euro is Here, Avoid This Trap*, *Wall Street Journal*, Europe, May 5 1998  
\* *A Coming Home or Poisoned Chalice?* Centre for Research into Post-Communist Economies

samuel.brittan@ft.com

## LETTERS TO THE EDITOR

### IT investment advice packages pose threat to full-service brokers

From Mr Henry Birdseye Weil

Sir, Your article "Caught up in the net" (August 29-30) is right on target regarding the impacts of the internet on transactional services. However, it reflects the predictable, but unjustified complacency of full-service brokers. They fail to recognise that advice is not immune to commoditisation, but rather is following execution down the same path.

Competitive pressures, technological developments, and greater investor sophistication are combining to:

- Reveal that most advice adds little value or is actually value-destroying.
- Make a wide range of "professional" financial information - for example, analysts' research reports - available to retail investors at little or no cost.

Encourage investors to take a DIY approach.

● Cause financial service providers to use advice as a loss-leader to win and retain customers. Studies show that most actively managed portfolios underperform the broad market indices. The same conclusion almost certainly applies to investment advice. The retail investment process will become "advice-lean" because of the rise of US-style mutual funds as the primary repository of retirement savings, and investor reliance on rating services to select specific funds. This trend will be reinforced by the availability of increasingly intelligent, low-cost software to support investment decision-making, plus growing scepticism regarding the objectivity and professionalism of "expert"

investment advice.

In the future, value added will come from using sophisticated information technology to integrate financial services in innovative ways. Examples include bundled banking and brokerage services, systems which provide access to a wider range of markets and investment opportunities, and brokers who become on-line merchants with product information, shopping, and consumer finance. Traditional full-service brokers face a stark Darwinian selection process. Many are already an endangered species, but don't yet know it.

Henry Birdseye Weil, senior lecturer, Sloan School of Management, MIT, 50 Memorial Drive, Cambridge, MA 02139, US

### Taking the lead with good judgment

From Mr Bruce Toffield

Sir, John W. Hunt "Intuition is more than just a hunch". August 30 addressed, over many columns, a query about a manager whose performance "was peppered with impressive feats of instinctive problem-solving".

Confusing good judgment with "intuition" creates confusion and waffle. "I initiated the new activities. I just did it" - you have to make a judgment to do things that are of benefit to the firm.

This was what a very successful chief executive, mentioned more than once in this paper, told me when I was interviewing him to understand his potential.

His capacity for making good judgments was evident from the way he described his decisions. More important, his potential to succeed would have been evident to the trained observer long before his present success. The successful manager who was the focus of Prof Hunt's article was likewise exhibit-

ing good judgment, but being honest about the way judgment feels when saying she "just knows".

Good judgment is the key to good leadership and good management. Only where it is in abundance can companies be masters of their destiny.

Bruce Toffield, Realities Potential, The Old Bakery, 212 Hoppers Road, Winchester Hill, London N21 3NF, UK

### The logical refuge for a beleaguered dollar

From Mr Robert Coleman

Sir, I notice that on the same day (September 1) as you published the letter from John Stevens, an MEP, concerning the need for sterling to enter the protection of a monetary bloc to avoid exposure to the volatility of

the currency markets, your headline in the *Currencies and Money* section reads "Dollar becomes casualty of turmoil".

Following his argument to its logical conclusion, could it be that Mr Stevens would now suggest that the dollar

should seek entry into Emu?

Robert Coleman, director, US Offshore, Roman House, 296 Golders Green Road, London NW11 9PT, UK

Number One Southwark Bridge, London SE1 9HL

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A Better Return On Information.

## Forget Toulouse

Boeing's new boss must stop wasting time moaning about Airbus and get on with the job of making its aircraft more profitable, says Michael Skapinker

As the world's aerospace executives begin gathering for next week's Farnborough air show, near London, one topic dominates conversation: can Alan Mulally save Boeing?

Mr Mulally was this week given the task of reviving Boeing's civil aircraft division after the sacking of Ron Woodard, one of the industry's dominant figures. Mr Woodard paid the price for months of production problems at Boeing's factories, which helped push the group into a \$18m net loss last year - its first for 50 years.

Mr Woodard's dismissal was announced by Phil Condit, the US group's chairman, whose own departure has been frequently rumoured in recent months. While Wall Street largely welcomed the change, some were sceptical. The cynics compared the Boeing reshuffle to Russian president Boris Yeltsin's decision to change prime ministers. Boeing's problems run deep, they say. They cannot be solved simply by changing the faces at the top.

The past three years have been the best the aircraft industry has seen since the late 1980s - and Boeing has largely wasted them.

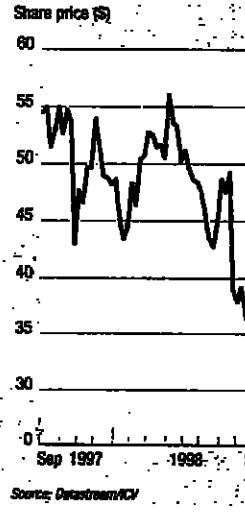
It expects to deliver 550 aircraft this year, compared with 374 last year and 299 in 1996. Yet its financial performance has been dire.

Of course there have been achievements. Last year's takeover of McDonnell Douglas, also of the US, gave Boeing a large defence arm to complement its civil aircraft business. Boeing has also started to upgrade its antiquated production techniques, which, for example, involved parts being logged on 400 separate computer systems.

But Boeing attempted a sharp increase in aircraft output while the upgrading of its manufacturing processes was still incomplete, and its factories failed to keep pace.

Full recovery will take several years. After the 1997 loss, Boeing expects net earnings of \$1bn this year and \$2bn in 1999. These forecasts deeply disappointed analysts: Boeing's expected earnings represent less than

### Can Mulally rescue Boeing?



Source: DataStream/ICV



Alan Mulally  
Boeing's new CEO

2 per cent of forecast sales this year and 3 to 4 per cent in 1999. After that, analysts fear the aerospace industry will enter a downturn, which could happen sooner if the current market turmoil results in worldwide recession.

Knowing that its factories were not fully modernised, why did Boeing attempt to raise output from 18 aircraft a month in 1996 to 47 this year? The answer is because profitable airlines were investing in new aircraft and Boeing was desperate not to lose business to Airbus Industrie, its European rival.

The battle with Airbus, a four-company consortium with headquarters in Toulouse, is the key to Boeing's problems. The two are the world's only manufacturers of large jets. At a time of rising demand, they should have had no problems in increasing prices, particularly with all their factories working at full capacity.

But so desperate was Boeing not to cede its market leadership that it entered a ruinous price war with Airbus. The European consortium has only once, in 1994, won more annual orders than Boeing. The US group's sense of humiliation was intense.

Boeing's executives, with the now-dismissed Mr Woodard at the helm, vowed it would never happen again. At the group's Seattle factories, workers put up banners saying "Refuse Toulouse". When airlines approached

omique, which means it does not publish accounts. Any profits and losses accrue to its owners - Aerospaciale of France, Daimler-Benz Aerospace of Germany, British Aerospace and Casa of Spain.

While it is true that Airbus receives a third of its development costs from its shareholders' governments, this is legal under a US-European agreement. And Boeing receives government assistance too. A recent example is its Delta III rocket, which blew up on its maiden flight last week. Developed as part of the US defence programme, it will be used to launch commercial satellites.

Boeing's argument that Airbus can hide any losses carries more weight. There could be some relief for Mr Mulally here since the Airbus partners intend to turn it into a limited company next year, and eventually float it off.

This should mean Airbus would have to pay greater attention to shareholder value, which might dissuade it from cutting its prices. But Nick Cunningham, aerospace analyst at Salomon Smith Barney in London, says that even as a limited company Airbus might be slow to change, particularly because Aerospaciale will continue to exert an important influence. Although the French government has announced plans to privatise Aerospaciale, Mr Cunningham says it takes time for companies to adjust to life in the private sector. "It took British Aerospace a long time and a near-death experience to change," Mr Cunningham says.

In any event, Mr Mulally cannot base his strategy on Airbus changing. He needs to complete the modernisation of Boeing's factories and insist that its aircraft are sold at a profit. He will have to accept that Boeing might sometimes have to take second place to Airbus, which will require a substantial culture change in Seattle. If he succeeds, Mr Mulally will be the clear favourite to succeed Mr Condit as Boeing's chairman. If he fails, he can expect to be cast aside with as little ceremony as a Russian prime minister.

Boeing argues that Airbus is subsidised by European governments. It adds that Airbus's structure makes it impossible to tell whether it is profitable or not. Airbus is a *Groupement d'Intérêt Econ-*

Helping hand



COMMENT & ANALYSIS

FINANCIAL TIMES

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Thursday September 3 1998

Exorcising Russia's past

US President Bill Clinton has come and gone, but Russia remains locked in a political stalemate. It has no government, its currency continues to tumble, its stock market has crashed, its banks cannot pay their depositors and the shelves of its shops are rapidly becoming as bare as they were in the bad old days of the Soviet Union. The parliament refuses to confirm a new prime minister in office, and is attempting to impeach Boris Yeltsin, the president.

Mr Yeltsin insists that he wishes to maintain the path of economic reform pursued by his previous governments. So does Victor Chernomyrdin, the man he wants to reinstate as prime minister, just five months after he sacked him. But it is not clear what they mean by economic reform, whether they mean the same, and whether they have any hope of getting it past the communist-dominated Duma. In short, there is no policy in prospect to cope with the crisis.

The problem which has stymied the whole process of reform, virtually since Mr Yeltsin came to power, is that there is no national consensus on how to transform the country from wholesale communism to a free market. The president certainly has no vision of his own, and his governments have muddled their way from one compromise to the next, fearful of dismantling the

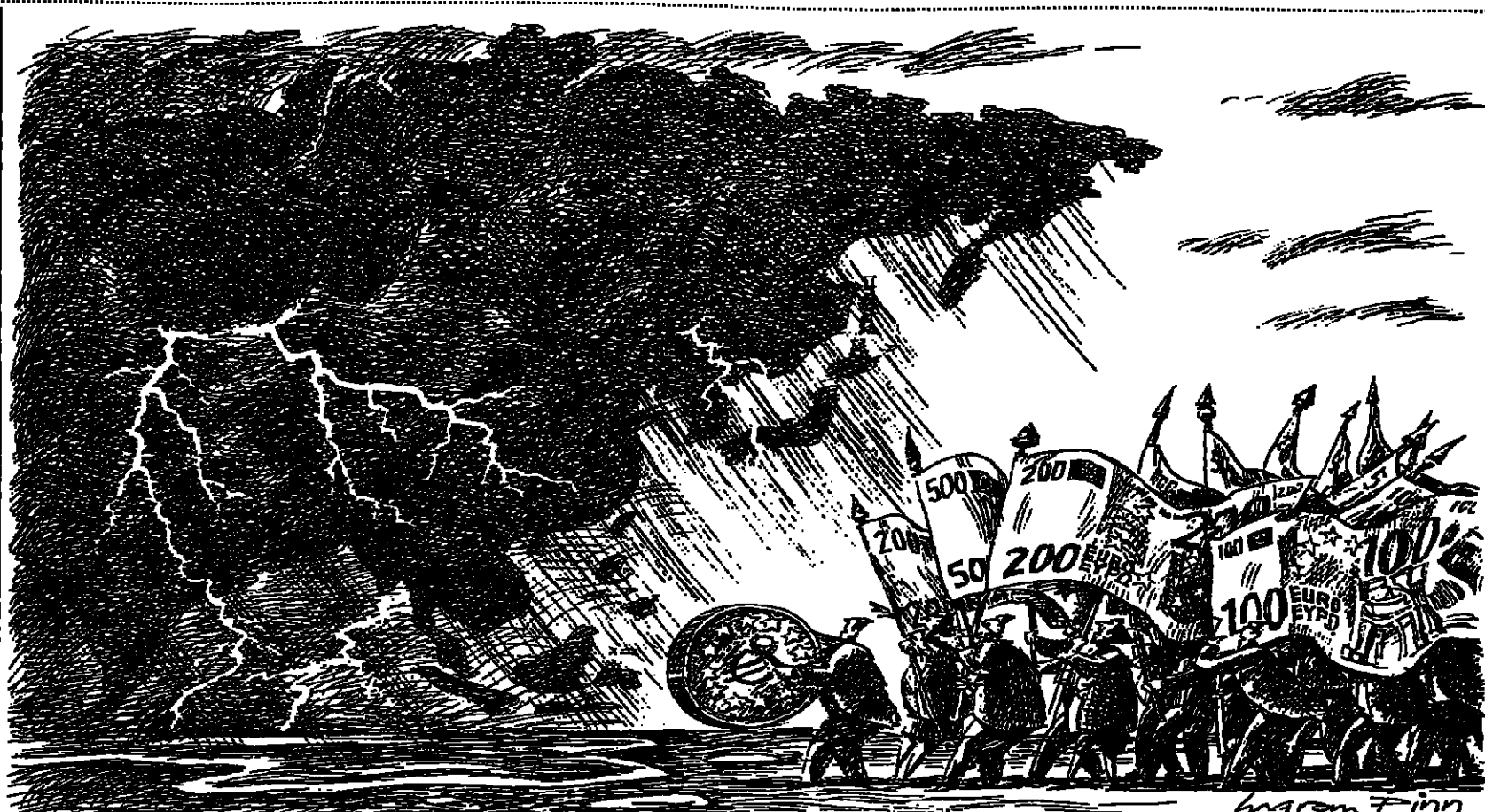
old system before a new one is in place.

The result is a country which has liberalised its financial markets, but failed to reform its industrial structure. It maintains much of the psychology of the command economy, within the trappings of a market system. And it does not work.

A majority in the Duma, led by the rump of the old Communist party, would like to go back to the past. They are convinced that the reforms have led to today's collapse. But they have consistently blocked major items of legislation, including essential tax reforms, and attempts to curb the monopoly powers of the old state producers. So they are also part of the problem.

Of course Mr Yeltsin might decide to call the Communists' bluff by proposing one of them to be prime minister, like Gennady Zyuganov, the man he defeated in the last presidential election. It would be a huge risk, both because Mr Zyuganov and his colleagues are unimpressive and because they would almost certainly try to turn the clock back to the command economy. The only consolation is that they would be deemed to fail.

It would be a desperate move, and a step backwards. But at present there looks to be no other way forward. At least it would remind Russians that nostalgia is no answer to their problems.



Raining on Europe's parade

One of the greatest monetary changes ever – Europe's single currency – will begin as the full effect of the emerging-market crisis becomes clear. Wolfgang Münchau considers the implications

Only a few weeks ago a senior European central banker said the launch of the single currency could not take place at a better time. Economic growth was picking up, he noted, and there were few signs of inflation.

A few weeks and a financial crisis later, the opposite seems true. It now looks as if European economic and monetary union could hardly have been launched at a worse time. The fear of global recession, an unstable financial environment and a contagious spread of devaluations from Asia, to Russia and possibly to Latin America and central Europe have all combined to create a disturbing dilemma for European policymakers. In particular, the risk is growing that the new European Central Bank will get its monetary policy wrong when it assumes responsibility for the single currency next year.

If the governors of the ECB set interest rates too high, they will be criticised for forgetting the lesson of the 1930s depression, caused by the failure of central bankers to offset falling share prices with a looser monetary policy, sending a ripple effect of bank failures across the world.

But if the ECB's governors set interest rates too low, they will be criticised for failing to observe another historical lesson. In 1987 many of the world's central banks made the opposite mistake by overreacting to a stock market crash by cutting interest rates in the middle of an economic boom. The result was higher inflation which required a fierce monetary squeeze in the early 1990s. If the ECB opted for this particular mistake, it would risk breaching its constitutional duty to maintain price stability.

Finance ministers face equivalent risks with fiscal policy. The budgets of the 11 countries that will use the euro are constrained by a stability and growth pact, which calls for balanced budgets over the business cycle. But as signs grow of a world slowdown (or worse), politicians will con-

front the question: should they react by relaxing fiscal policy, and thereby risk breaching the pact? Or should they stick to the pact, set policy on autopilot, and hope everything works out?

The scope for mistakes is alarming and the stakes are huge. If there is a global slowdown, then Europe, which accounts for almost 30 per cent of world output, should be better placed to act as a locomotive for the world economy than Japan or the US, the other industrial superpowers. Japan is plunging deeper into recession. The US, which has so much of its wealth in the stock market, will be harder hit by a market correction than Europe. The Organisation for Economic Co-operation and Development estimates that a 20 per cent fall in share prices would reduce European gross domestic product by 0.2 per cent in the second year, but would cut the US's by 0.6 per cent. The corollary is that if Europe is perceived to have got its policy response wrong – if it retreats into its shell instead of being a locomotive – then the disappointment and opportunity cost will be all the greater.

Euro sceptics should not get too excited, though. Emu will not disintegrate or even be delayed because of a slump in world stock markets or because of the economic meltdown of Russia. On the contrary. A delay would only add to the uncertainty and would smack of panic.

Nor does the crisis mean that Emu is necessarily at greater risk of breaking up. The main threat to the currency union has always come from a so-called asymmetric shock – that is, one that affects different countries differently. The shocks of the past few weeks are not like that. It is true that a meltdown of the Russian economy would affect Germany more than France, but even so Russia makes up less than 2 per cent of German trade. Broadly, from the European point of view, shocks from Russia, Asia or on Wall Street, are all symmetrical – affecting the whole of the euro zone in the same way.

But all this is little consolation for Europe's policymakers. For them, the situation differs from the position in the early 1930s or late 1980s because of the great uncertainty over the immediate economic outlook. Policymakers are now confronting two sharply different possibilities, with very different policy implications.

The first outlook is the optimistic case. In its spring forecast, the European Commission forecast growth in the E-11 zone of 3.0 per cent this year, rising to 3.2 per cent in 1999. At these rates, the euro-zone would become the world's economic locomotive by the end of this year. It was this prospect of a strong rebound in growth that has attracted many international investors and much hot money into the euro-zone.

The other possibility is far more pessimistic. It is increasingly being shared by private-sector economists. The economic research team of Deutsche Bank in Frankfurt warns that the E-11 growth rate might not be 3.2 per cent in 1999 as the Commission had forecast, but only 2 to 2.5 per cent. Similarly, Gary Dugan of J.P. Morgan has cut his GDP growth prediction for 1999 from 2.9 per cent to 2.5 per cent and revised down his forecast for European corporate earnings growth next year from 12 per cent to 5 per cent.

The difference between the two forecasts is due in part to the wealth and investment effect of the recent fall in stock markets as consumers are less well-off and companies face a less attractive environment for raising cash for investments. But most of the difference is due to the knock-on effects of any global economic slowdown. Around 40 per cent of the world economy is either in recession or heading that way. It is difficult to imagine that the euro-zone can make itself immune from the world economy and remain a safe haven for any length of time.

The contrasting forecasts have different policy implications. If the euro-zone economy is growing at 3 per cent, as the European Commission suggested back in the spring, the current level of European interest rates would appear extremely low by historic standards, even taking into account the relatively benign outlook for inflation.

Under the Commission's forecast, the euro-zone economy would be well on its way towards the peak of the business cycle and interest rates should probably go up now, anticipating future capacity shortages, rising further next year.

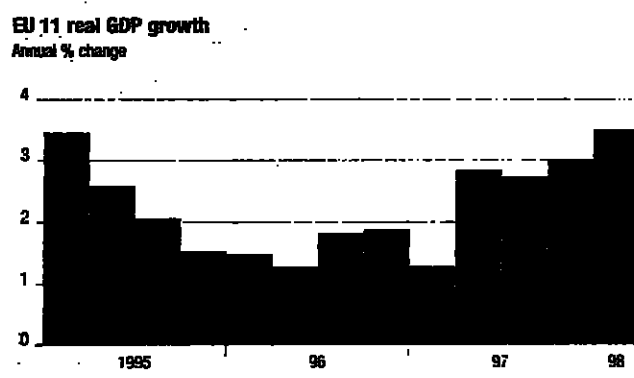
The correct fiscal policy response, on these assumptions, would be to keep a tight rein on spending and seek to run balanced budgets. European officials have already expressed concern that European governments may have lost interest in keeping fiscal policy tight as soon as they met the Maastricht criteria for entry into the single currency.

Adjustment fatigue is setting in everywhere. Now consider the pessimistic forecast. The cycle is almost flat, and the economy is stuck at low growth rates. Deutsche Bank, for example, said this scenario suggests interest rates would remain at 3.5 per cent until the end of 1999. This would mark an unprecedented long time of extremely low rates.

The pessimistic outlook would be especially bad news for Europe's 17m unemployed. Unemployment in the euro-zone has slowly fallen from its peak of 11.7 per cent in June 1997 to 11.2 per cent in June this year. With economic growth faltering, the trend decline in unemployment is unlikely to continue. Further reductions in unemployment would then require controversial fiscal and labour market reforms – cuts in effective minimum wages, cuts in non-wage labour costs, a more liberal legal environment for labour contracts and, of course, cuts in income tax rates. Many of Europe's governments had hoped the resurgent economy would take care of the unemployment problem, obviating the need for such reforms.

But neither structural reforms, nor an overhaul of the international financial system, will eradicate the policy dilemma for the ECB. There is no imminent need for policy action now, since Europe faces neither an imminent threat of inflation or of deflation. But the problems will set in next year, when the ECB takes over from national central banks. By that time, ECB directors must have made up their minds about where they think the European economy is headed.

Europe's central bankers are a cautious bunch. They are likely to remain more concerned about the devil they know – inflation – than they once they don't: deflation. That suggests they will not loosen policy much. If they are right, European growth will continue steady. But if they are wrong, economic problems could get much worse – and not only in Europe.



The other Europe

The recent collapse of confidence in emerging markets has dealt a harsh and unjust blow to those countries in eastern Europe that had been making rapid strides towards reform.

The 27 per cent fall in the value of the Budapest stock market since Russia's default on its foreign debt could hardly be justified by any deep-seated change in Hungary's economic prospects. The same is true of the Czech Republic and Poland. Risk premiums in central Europe have risen along with the uncertainty in Russia.

In the panic, investors have largely ignored the fundamental changes that have occurred in the region since the days of Communism.

The overwhelming economic links with Moscow have long since been broken, as the countries of central Europe have re-oriented their trade towards the European Union. Russia now accounts for only around 5 per cent of many central European countries' exports compared with the two-thirds to three-quarters of their trade going to the EU. Economic growth in the EU is of far greater importance for their economic health.

All three central European countries are implementing orthodox economic policies with the object of entering the EU after 2002.

They know this is a narrow

path. Consequently they can be expected to pursue strict and responsible economic policies during the mounting Russian crisis. Since failure will be punished by the markets, success should not now be ignored.

The Czech Republic, for example, is recovering well from its difficulties in early 1997, when financial market irregularities, a slackening of the pace of reform and a growing current-account deficit eroded confidence. Devaluation and the austerity package are helping to bring the economy back on track, and the new minority Social Democrat government appears to accept that it must press on with the full privatisation of the banking system and more financial reforms.

Elsewhere in the region similar efforts are already well in hand. The breaking up of the cosy relationships between banks and indebted companies is a key condition for restructuring the enterprise sector. After a halting start, Hungary has led the way and has largely privatised the banks with a big injection of international banking knowhow. Poland is moving resolutely down the same path.

It would be a sad irony if the privatisation process should be disrupted by a collapse of investor confidence triggered by the failure of nearby Russia to pursue just such consistent and rigorous market reforms.

Helping hand

When Bill Clinton arrives in Northern Ireland from Moscow today, he will move from the politics of despair to hope. In Russia the US president could do little. In the province he can exert a powerful influence towards peace.

Before the visit, his office telephoned Gerry Adams, leader of Sinn Féin/IRA. On Tuesday, Mr Adams committed himself to peace in unprecedentedly strong – and unambiguous – terms. He stopped short of promising that his terrorist supporters would hand in their weapons, but the rhetoric of peace makes it progressively less likely that they will be used.

Peace may yet prove elusive, but when Mr Adams says that "inclusive and honest dialogue is the only way forward in this country", he should be taken at his word – and held to it. Mr Clinton can help to reinforce that message, not only throughout Ireland, but among his compatriots in the US who have been helping to fund terrorism in Ulster for three decades.

After the death of 28 people in Omagh, the US said it would advise voters to members of the 32-County Sovereignty Committee, the political arm of the self-styled "Real IRA" which committed the atrocity. This was a useful way in which the US could help to isolate the rump of fanatics still espoused to violence. It was one more of the building blocks of peace, so labo-

riously assembled since the Good Friday agreement. Their success in changing the consensus in Ulster was reflected in the overwhelming condemnation of the Omagh bombing, recently echoed even by the provisional IRA.

Against such a political background, when hope seems to be emerging from the Omagh rubble, the UK government's hasty move to strengthen the laws against terrorism look ill-judged.

Granted, they are directed specifically at members of the few terrorist organisations which have not signed up to the peace process. Granted that some safeguards have been included in the most recent draft. The uncorroborated word of a policeman will not now be enough to secure a conviction. Silence will be suggestive of guilt rather than proof of it. Granted also, the measures will be reviewed after a year.

Even so, this law represents a serious incursion into civil liberties. If strictly applied it could too easily create martyrs, especially in the minds of Irish Americans who may be wary about the details.

The peace process can best be cemented by transparent justice and cautious clemency. The effects of reducing the burden of proof against suspected terrorists will be judged not only by Irish sentiment but at the bar of US and world opinion. The new law must therefore be applied with the greatest caution and repealed as soon as possible.

Bear out of the woods?

There can be few people around Wall Street more relieved by the stock market's recent direction than Larry Tisch. The former chairman of CBS has had his money – or at least his shareholders' money – riding on a stock market fall for some time. Loews, the New York holding company that Mr Tisch heads, took the unusual step of placing a bet on lower share prices more than 18 months ago, and lost more than \$1.5bn as a result.

Speculation? Not according to Tisch. Loews's operating companies range from insurer CNA to the Lorillard cigarette company and Bulova watches. The stock market "hedge" was a way of protecting shareholders from a fall in value at these companies that would come from a general market decline.

Not the sort of thing that most chairmen of holding companies do, perhaps. But his shareholders are probably feeling a little happier this week – assuming, of course, that Tisch kept the faith and stayed bearish.

Three months ago, Tisch told Business Week that a 20 per cent decline in the stock market would probably help him make up all of Loews's losses, adding: "in the long run, I think we're doing the prudent thing."

The stock market has gone down some 15 per cent since the

middle of July. Loews's stock has hardly budged.

Victory role

Smiles all round yesterday as the European Fighter Aircraft was christened Typhoon for export markets. The name certainly has resonance – the Royal Air Force had a few thousand Typhoon fighters during the second world war.

But Observer recalls that the old crate wasn't the British aviation industry's finest. It was late into service, unreliable, subject to structural faults – the tail fell off several early examples – and too slow to fulfil its original brief as an interceptor.

It wasn't all bad. The old Typhoon could carry more cannons than a Spanish galleon and eventually came into its own as a ground attack aircraft: one even managed to catch up with Rommel's staff car to give the field marshal a fright.

Anyway, you don't expect perfection for £5,000 a throw. Let's hope the £40m-a-go Eurofighter fares better – or it might end up spraying crops.

Meishi beaucoup

Japan's meishi printing industry has emerged as a winner from the various merger antics at United Bank of Switzerland over the last year. In a country that takes the art of presenting meishi – business cards – very

seriously, corporate reshuffles mean lucrative printing orders. Some current investment banking staff started off with name cards embossed with SG Warburg. When Swiss Bank Corporation bought that a few years ago, new cards were needed for SBC Warburg.

But then came the planned joint ventures with Long Term Credit Bank, officially known as LTCB-SBC Warburgs. But then UBS merged with SBC – and the new meishi changed to incorporate the UBS instead.

Just as the staff got used to wielding that card, they have now been told that the LTCB is to be dropped, pending a verdict on the troubled Japanese bank's fate. For the time being, there are new meishi boasting the title Warburg Dillon Read, which the Swiss bank hopes will have a better shelf – or should that be wallet – life.

The printers, for their part, are hoping that Sumitomo Trust will come on board the joint ventures before too long.

Voice over

Italians have tolerated strikes by everyone from farmers to airline stewards and beach workers this year, but a walkout by film dubbers is a scorpione too far. Italians hate subtitles and insist on American films being dubbed. But a strike by the dubbers in the SAI actors' union over pay, and conditions looks like

depriving movie-mad Italians of a post-holiday surfeit of celluloid.

The dubbers are taking their case to the Venice film festival which starts today – where Hollywood blockbusters like Steven Spielberg's *Saving Private Ryan* will be shown in plain American English. This might be just the moment to revive the Italian film industry.

Hacked off

There was a frantic hunt for gnomes – or hackers – in Brussels yesterday as the European Union's web site declared that a clutch of EU ministerial meetings had been called off.

Sadly, one meeting not "cancelled" was next month's "special" summit in Pörschach, Austria, on EU institutional reforms. Many Brussels insiders would happily see that one slide off the agenda as it promises to be among the EU's duller events. Maybe the computer hacker is looking forward to that one – it sounds like a nerds' paradise.

Loving dolls

Selling like hot cabbage in Moscow is a traditional Russian-style matryoshka nest of dolls. The big outer doll is jovial Bill Clinton. Inside are several women including Monica Lewinsky and Jennifer Flowers. Sounds like an inappropriate relationship.

Financial Times

100 years ago

**Anglo-German Alliance Rumoured**  
The "Pall Mall Gazette" states that an alliance has already been signed between England and Germany. "If our information is correct, as we have every reason to believe it to be, an Anglo-German agreement was concluded this week. It is believed to be restricted in character, but to embrace an offensive and defensive alliance in certain eventualities. This new and momentous departure in foreign policy comes, when it is carefully considered, as a natural development in the European situation."

50 years ago

**Groundnuts In E. Africa**  
Dar-es-Salaam, Sept. 2  
Approval of Tanganyika's groundnut scheme was expressed to-day by three delegates of the United Nations Trusteeship Visiting Mission at the conclusion of their inspection of the Kongwa groundnut area. They declared that the project should prove of great benefit to the Colony both directly and indirectly. It should prove a success and become a pattern for other countries to follow.







Various small advertisements and snippets on the left margin, including 'EMERGING TS FUND', 'KPMG Peat Marwick', and 'NESIS'.

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**Football clubs flex muscles by signing exclusive TV deal**

Power and wealth in European football is being concentrated among fewer clubs. The decision by Juventus, AC Milan, Inter Milan and Napoli to sign an exclusive coverage contract with Canal Plus, owner of Italian pay TV network Telepiu, marks the end of a collective approach to selling broadcasting rights. Page 14

**Gambro likely to simplify structure**

Gambro, the Swedish medical technology group, is considering a sweeping overhaul of its manufacturing, research and marketing activities. The company is expected to reveal plans to simplify its organisational structure. Mikael Liljus (left), chief executive, will cite the complex structure as one of the main barriers to cutting production costs and improving margins. Page 15

**Insurance sales grow in Vietnam**

Life insurance is a new idea in Vietnam but policy sales are growing. The lure for foreign companies is clear now the Communist party has dropped its opposition to completely foreign-owned groups. But local insurers say they are not ready to face foreign competition. Page 17

**Brazil's coffee crop set to disappoint**

Expectations of a bumper coffee crop in Brazil may be disappointed as the harvest is likely to be 10 to 15 per cent below official forecasts. Micro-climatic conditions, including irregular rainfall, have meant poor growth for coffee plants in some key growing areas. Page 24

**Hansabank interest lifts Estonia**

While the Russian crisis sent global stock markets on a downward spiral, Estonia's stock market posted strong gains last week. The market was kept buoyant by strong interest in Hansabank, the largest bank in the Baltic region. Hansabank stock rose as Banken Skandinaviska-Enskilda and Swedbank of Sweden built up stakes in the blue-chip stock. Page 34

**CBOT meets to reconsider CME deal**

The plan by the Chicago Board of Trade and the Chicago Mercantile Exchange, the two big US futures exchanges, to pool their back-office clearing facilities is again in doubt. CBOT directors met to consider a petition from members calling for the deal to be reconsidered. Page 22

**COMPANIES IN THIS ISSUE**

ABN Amro	18	Kvaerner	18
Ahold	14	LTCM	18
Air Canada	5	Malcher	14
Ashanti Goldfields	18	Merrill Lynch	18
Australian Int Airport	17	Motorola	12
Ayala Ltd	17	Mutual Life	18
Bao Viet Life	17	NAB	17
Beijing Enterprises	13	Norcross Safety	17
Berg, Alfred	15	Orange	30
Biffon	30	Peacorp	8
Boral	17	PepsiCo	12
Burford Holdings	30	Photobition	18
CSP Homes	17	Power-One	14
CMG	18,30	Primark	16
Cable & Wireless	13,30	Procter & Gamble	16
Calm Energy	30	Pelon	18
Canada Life	16	Retele	14
Canal Plus	14	Sarnex Gold	18
Casa	16	Sanofi	18
Chase Manhattan	16	Sapporo Breweries	17
Ciena	18	Sarco	30
Citicorp	12	Sieba	18,30
DLJ	18	SkyePharma	18
DMGT	18	Smurfit (I)	18
Drescher Bank	2	Sumitomo	18
EAP	14	Swiss Re	15
Euroco	16	Tabacalera	14
Gambro	15	Telefonica	4
General Electric	12	Telepiu	14
Globeval	14	Telabs	18
Hammerston	30	Total	14
IBM	18	Waburg Dillon Reed	15
J. Sainsbury	8	Wetherford Wedgwood	18
JCB	18	WestLB	2
KOR	18	Wharf (Holdings)	17
KPMG Peat Marwick	12	Wills Coroon	18
Katz Digital	18	Xerox	12
Kranepolsky	14	Yahoo!	18

**CROSSWORD, Page 24**

**MARKET STATISTICS**

Annual reports club	28,30	Emerging Market bonds	22
Benchmark Govt bonds	22	FTSE Active share indices	30
Bond futures and options	22	Foreign exchange	22
Commodity prices	22	Oil prices	22
Commodity prices	22	London share services	28,29
Dividends announced, UK	18	Managed funds services	28,29
EMS currency rates	21	Money markets	22
Euro prices	21	New list bond issues	22
Export prices	22	Recent issues, UK	22
Fixed interest indices	22	Short-term list rates	22
FTSE-A World indices	21	Stock markets at a glance	30
FTSE Gold index	21	US interest rates	22
		World stock markets	21

**ENGINEERING AND SHIPBUILDING GROUP PLANS SHAKE-UP IN EFFORT TO RESTORE EARNINGS AND EASE DEBT BURDEN**

**Kvaerner reports 68% drop in profits**

By Valeria Skid in Oslo

Kvaerner, the Anglo-Norwegian engineering and shipbuilding group that acquired the UK's Trafalgar House in 1996, yesterday reported a worse-than-expected fall in interim profits and announced a reorganisation aimed at restoring its earnings and easing its debt burden.

For the first six months, Kvaerner's pre-tax profits fell 68 per cent from Nkr440m (\$105.5m) to Nkr288m. Analysts had forecast profits of about Nkr549m. The company blamed the "highly unsatisfactory position" on further delays and suspension of contracts in Asia; cost-related issues on large projects in the Norwegian sector; a lack of profits on projects at its Kvaerner Masa yard in Finland; and a write-down on the value of share investments.

"Of course these are not glorious figures," said Erik Tonseth, president and chief executive. "Even with aggressive cost-reduction programmes in place in several business areas, it would be unwise to rely on any significant improvements in results, net of sales gains, in the second half of the year."

The shares fell Nkr0.5 to Nkr156.5 in Oslo yesterday, having touched a low of Nkr145. They have underperformed the Norwegian market by nearly 50 per cent since January 1997.

"Mr Tonseth has to prove he can reduce the debt level and make [shipbuilding and oil and gas] more profitable," said Christer Roth, an analyst at Karl Johan Fonds in Oslo.

Under the shake-up, Kvaerner will streamline its seven business areas into four from October 1. Two new business groups will be created. Industrial Products will swallow the previously separate business areas Pulp and Paper, Kvaerner Energy and the equipment units of the former Metals area.

**Liffe plans new rival to German benchmark bond future**

By Edward Lucas, Capital Markets Editor

The London International Financial Futures and Options Exchange yesterday unveiled plans for a new contract which it hopes will topple the German government bond future as Europe's benchmark derivative after monetary union.



Graham Wallace, CWC chief executive, left, with IBM's Frank Kern. 'Nothing on this scale has been seen in telecoms,' David Ahmed

**IBM wins \$3bn deal to run systems for CWC**

By Alan Cane in London

Cable and Wireless Communications of the UK has outsourced its central management systems to International Business Machines in a 10-year agreement worth £1.8bn (\$3bn) to the US group.

It is thought to be the largest deal of its kind in Europe and the first time a large telecommunications operator has turned over so many of its critical management systems - including customer care and billing - to a third party.

Mr Graham Wallace, CWC chief executive, said: "Nothing on this scale has been seen in telecoms."

It should prove a step forward for CWC, the UK's second largest telecommunications company, which has been plagued with a plethora of information systems of indifferent quality since the group was created in the 1980s from Mercury Communica-

tions and three cable companies. It will also be a boost for IBM's fast growing global services division which has 116,000 staff and a turnover of \$26bn in 1997. Outsourcing deals are an important target for the division as the emphasis within IBM moves from manufacturing to computer services.

Frank Kern, the division's general manager for the European region said: "We would like to do similar deals with other telecoms operators."

**Beijing Enterprises raises \$165m loan**

By Louise Lucas in Hong Kong

Beijing Enterprises, the investment arm of the Chinese capital's municipal government, yesterday secured Hong Kong's credit crunch and signed a US\$165m loan facility on relatively favourable terms.

Only a handful of Hong Kong corporates have secured syndicated loans this year. The biggest was raised by Cheung Kong, the property developer controlled by Li Ka-shing, a HK\$2.15bn (US\$277m) facility which paid 1 per cent over Libor (the Hong Kong interbank offered rate). Blue chips such as Wharf Holdings have paid more dearly for their funds. Wharf, whose credit rating has been downgraded several times this year, paid a 187.5 basis point premium, and

also put up a mortgage as security. By comparison, Beijing Enterprises is paying 100 basis points over Libor for three years, and 275 if the loan is extended for a further two years. Other deals by red chips, or mainland-backed Hong Kong companies, are understood to be paying a margin of 1.75-2 per cent above Libor.

While the funding is attractive, investors are concerned at the foreign debt exposure of companies in Hong Kong. Red chips are seen as having some of the biggest exposure to foreign debt. Guangdong Investments, for example, has US\$285m foreign debt, 25 per cent of its total, while most of its sales are in renminbi of Hong Kong dollars.

Airlines such as China Southern and China Eastern are in a similar position, with substantial US dollar borrowings and around 75 per cent to 80 per cent of revenues in renminbi.

**Run-up to euro sparks portfolio reorganisation**

By Jane Martinson, Investment Correspondent

Merrill Lynch, the US investment bank, traded shares worth a total of \$4.2bn in the first six months of this year for European investors restructuring funds in the run-up to the introduction of the single currency.

The sum, a small but significant part of the bank's overall trading, highlights the extent of changes to asset allocation before the launch of the euro on January 1.

This announcement appears as a matter of record only

**Management Buy-out of Forest Fencing**

**£31,000,000**

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The single currency is expected to lead to significant portfolio restructuring among European institutional investors as it removes restraints on investing in non-domestic assets.

Fund managers who typically hold more than 50 per cent of their portfolios in home markets will be able to invest this proportion in 10 other markets after January 1.

Steve Malinowski, director of portfolio strategies at Merrill Lynch, said yesterday that the extent of Euro-related trading in the first half of the year suggested that volumes could be much larger than expected. He added that such restructuring would become more important in terms of total European volumes towards the end of the year.

The bank has met more than 200 European clients in the past eight months to gauge their investment intentions as a result of Euro and intends to conduct a further 200 meetings before the end of the year.

Morgan Stanley Dean Witter, the US investment bank, estimated this year that some \$1,300bn-worth of new money will flow into continental European equities as a result of portfolio rebalancing between now and 2010. It believes the bulk of trading will be done next year (1999) with a total estimated volume of between \$400bn-\$600bn.

But many investment bankers yesterday said they were unconvinced the swaps contract would replace the German government bond future as the main benchmark in the future single currency. "In the US, the Treasury bond is still the main benchmark," said one trader. "Why should it be any different in Europe?"

Problems could also arise from the fact that the price of the contract - known as Libor-FinancedBond - will be based on the London Interbank Offered Rate, the rate at which banks lend to each other rather than on Euribor, a competing reference rate for the future single currency recently launched in Brussels.

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## COMPANIES &amp; FINANCE: EUROPE

OIL DOWNSTREAM OPERATIONS HELP FRENCH GROUP BUCK SECTOR TREND OF FALLING EARNINGS

## Total stable despite slide in crude prices

By David Owen in Paris

Improved downstream operating income helped Total, the French oil group, to achieve a virtually stable first-half result, in spite of the sharp reduction in crude oil prices.

The company yesterday reported attributable net income for the first six months of FF2.97bn (\$578m), against FF2.88bn a year ago. This was in spite of a 14 per cent contraction from FF2.98bn to FF2.82bn

in first-half sales. The performance is one of the best in the latest reporting period of the leading international oil groups, many of which have reported first-half earnings falls.

It was driven by a 84 per cent advance, to FF2.4bn, in operating income from downstream operations. This offset a 32 per cent decline from FF2.4bn to FF2.9bn in income from upstream activities, logged in spite of a 7 per cent increase in production to 840,000 barrels

of oil equivalent a day.

Speaking three weeks after British Petroleum announced a £30.3bn (\$51bn) agreed takeover of the US group Amoco - a deal that sent tremors through the industry - Thierry Desmarest, Total chairman, talked down the need for Total, ranked ninth in the industry by 1997 revenues, to make a similar move.

With regard to upstream activities, he thought there was little difference in competitiveness between Total

and its bigger rivals, while in chemicals the French group generally operated in niche markets where it was among the largest operators.

He acknowledged that economies of scale were possible in the downstream sector. However, even here Total was more likely to look for acquisitions in specific markets. The company later indicated that these markets might include the Mediterranean basin and Asia.

"We do not exclude external growth operations," Mr Desmarest said, "but we regard them with much caution."

The company said it was maintaining its aim of lifting production to 1.25m boe/d by 2005. In the short term, however, it would experience a few months' delay in starting production at the Yadana gas field in Burma. This was because of delays in completion of a related power plant in Thailand.

The company was also helped in the latest period by a lower tax bill and a sharp increase, from FF2.32m to FF2.21m, in the equity income of affiliates. This was mainly attributable to its stake in Cogema, the nuclear fuel reprocessor.

Earnings per share slipped from FF16.30 to FF16.10 based on a fully diluted weighted average of shares outstanding. Overall operating income dipped from FF7.7bn to FF7.6bn.

The shares climbed FF10, or 1.8 per cent, to close at FF756.

## Tabacalera in distribution spin-off plan

By David White in Madrid

Tabacalera, the Spanish tobacco company fully privatised in April, plans to spin off its distribution activities into a separate company which will later be floated on the stock market.

The project, authorised at a board meeting yesterday, involves separating off the group's activities in wholesale distribution of its own and other manufacturers' products.

Tabacalera is currently responsible for distributing about 90 per cent of the cigarettes sold in Spain, supplying the country's network of more than 15,000 licensed tobacconists.

It is also the dominant manufacturer through its own brands, joint ventures and licensing agreements. It also distributes stamps, official documents and other products through the same channel.

The group said the new company, provisionally named Logista, would have annual revenues of Ptas4.4bn (\$50m) and an estimated net profit of Ptas4.8bn on the basis of this year's projections.

The new company, which

would initially be a wholly owned subsidiary, would take over all Tabacalera's storage facilities and stocks as well as import contracts. The distribution side has more than 1.5m cu m of storage capacity across Spain and employs 800 people out of the group's total workforce of 6,500.

Tabacalera said the spin-off would bring more "neutrality and transparency" in dealing with other manufacturers and importers of tobacco products.

It added that the move was subject to official approval under Spain's new legal framework for the tobacco sector.

The public offering of the state's previous 52 per cent controlling stake in Tabacalera, which brought in about Ptas300bn, was seen as heralding a long-awaited restructuring of the group and the closure of some of its less efficient plants. It currently has 14 manufacturing facilities.

The group lifted its consolidated net profit in the first half this year by almost 30 per cent to Ptas1.1bn, on turnover 21.5 per cent up at Ptas22bn, including tax and tobaccoists' commissions.

## NEWS DIGEST

## NETHERLANDS

## Krasnapolsky postpones FI 155m share offering

Krasnapolsky, the Dutch hotels and restaurants group which this year took over the Golden Tulip chain, yesterday postponed a FI 155m (\$78.5m) share issue because of market conditions. The offering, being led by ABN Amro Rothschild, was to replace a bank loan taken out as part funding for the acquisition.

The group said the number of new shares needed to meet that amount would have been too dilutive for its earnings. The decision came after Krasnapolsky shares fell FI 15 in Amsterdam on Tuesday to FI 145. Their recent trading average has been close to FI 180. Yesterday they rallied strongly to FI 164.90. The offering was to have been launched today.

A much larger secondary equity issue, by the supermarket group Ahold, remained on course for a September 10 launch, that company said yesterday. Ahold is raising FI 4bn to finance its takeover of the Giant Food chain in the US. Roadshows for the international offering begin next week. Gordon Cramb, Amsterdam

## FOOD AND FEEDS

## Raisio in deal with US group

Shares in Raisio rose 7.5 per cent to FM71.50 yesterday after the Finnish food and feeds group announced it had signed a deal with a subsidiary of International Paper, of the US, for the delivery of raw material for its cholesterol-cutting Benecol products.

Under the deal, Florida-based Arizona Chemical will supply tall oil pitch to Raisio globally.

Stearols, the basic material used to produce Raisio's Benecol stanol ester products, will be extracted from this raw material. The Finnish group said the deal secured a dependable supply of the pine oil for the production of margarine and other products in the Benecol range. Reuters, Helsinki

## GLASS

## Glaverbel posts 67% advance

Glaverbel, the Belgian glassmaker, yesterday announced a 67 per cent increase in first-half net profits from BFR666m to BFR1.11bn (\$30.8m) and said it expected further strong growth in the second half in spite of the Russian crisis.

The group has interests in Russia after leading a consortium which acquired 25 per cent of Bor Glass Works, the main Russian flat glass producer, for \$20m last year. The company said Russia's financial crisis would have only a limited impact on Bor Glass Works, which was debt-free and occupied a dominant position in raw and automotive glass.

The jump in net profits was achieved without a contribution from PPC Glass Europe, the flat glass business based in France and Italy, whose acquisition Glaverbel completed this week. Consolidation of the former PPC businesses, acquired at a cost of \$333m, would have a "positive influence" on the second half, after financial charges, said Luc Willeme, chief executive.

The first-half profit increase reflected productivity gains achieved by a cost-cutting programme, and a better performance from processing activities. Total sales increased 7 per cent to BFR22.8bn. Earnings per share jumped 60 per cent from BFR109 to BFR174. Neil Buckley, Brussels

## ELECTRONICS

## US group pays \$42m for Melcher

Power-One, a US manufacturer of power supplies for electronic equipment, has added a European leg to its business with the \$53m acquisition of Melcher, a Swiss electronics company.

Melcher, a 1996 management buy-out from Elektrowatt, had been planning to float its shares on the Swiss stock market. However, Power-One - which had wanted to buy Melcher at the time of its MBO - has agreed to pay \$42m for Melcher and assume \$11m of debt.

Melcher, which had sales of \$36m in the nine months to June 1998, is a leading European supplier. California-based Power-One, which was floated on the US stock market two years ago, had first-half sales of \$50m.

At the time of the 1996 MBO, there were reports that the price for Melcher was between \$50m and \$70m. SBC Equity Partners, which organised the original MBO, declined to comment on the price, but indicated that it had made a profit on the deal and said that valuing a company at close to twice annual sales was comparable with other transactions in the industry. William Hall, Zurich

## Wealth polarity grows in Italian football

TV deal highlights power concentration, write Paul Betts and Patrick Harverson

Power and wealth in European football is increasingly being concentrated in fewer hands, as Tuesday's news of a landmark deal between Italy's four biggest clubs and the French broadcaster Canal Plus amply demonstrates.

The decision by the four clubs - Juventus, AC Milan, Inter Milan and Napoli - to sign the six-year contract with Canal Plus, owner of Italian pay TV network Telepiu, for exclusive coverage of their home league matches means they have abandoned the long-established collective approach to selling broadcasting rights which has served Italian football for decades.

Under the old system, the Italian football league negotiated a TV contract on behalf of all 38 clubs in the Serie "A" and Serie "B" leagues.

This pooling of rights meant revenues from the TV companies could be distributed on a reasonably equitable basis, thus maintaining some element of economic parity between the big and small clubs.

However, in the 1990s football has become a bigger and more competitive business, and the leading clubs have

grown increasingly unhappy about sharing revenues generated largely by their own popularity with the smaller clubs.

Unsurprisingly, the four clubs that have broken rank are those which attract the biggest TV audiences. Between them they account for about two-thirds of the total Italian soccer pay TV market - last season, Juventus had 28.9 per cent of the pay TV subscribers, Inter 17.5 per cent, AC Milan 15.4 per cent and Napoli, even though it was relegated to Serie "B", 9.4 per cent.

Estimates for the value of the individual deals with Canal Plus range between £100bn (\$5.7m) a year for six seasons for Juventus, Inter and AC Milan, and about half that much for Napoli - but only if the club secures promotion at the end of the coming season.

The clubs and the French company have refused to comment on the financial numbers. But if the current estimates are to be believed, the figure for the four clubs is only about £50bn a year less than the £120bn a year which the Italian league currently collects on behalf of the 38 clubs for all its TV rights.

While the big four get

richer, smaller and less popular Italian clubs fear the Canal Plus deal will make it harder for them to secure decent revenues from television rights.

Under the Canal Plus contract, the four clubs have proposed that away teams should receive only an 18 per cent share of the home match TV receipts.

This is in line with the 18 per cent share of ticket sales awarded to away teams in Italian football. However, most of the other teams are arguing for a 40 per cent share in TV receipts for away teams.

The likelihood that the new deal will further polarise wealth in Italian football and undermine competitive parity explains why it has sparked widespread concern not only inside Italian football but also among government officials.

That concern will be shared elsewhere in Europe, where football's governing bodies are struggling to restrain the power and influence of the big clubs.

UEFA, European football's governing body, is currently fighting against a proposed breakaway super league for elite clubs, while in the UK

the top clubs are already preparing for the day when they can sell their own TV rights.

That day may come as early as next year, when the Restrictive Practices Court is due to investigate the collective negotiation by the English Premier League of its TV deals.

If the court agrees with the Office of Fair Trading's view that the contract breaches government anti-cartel laws, the clubs would be free to strike their own deals.

The big clubs in Italian have broken away from the league now because the current pay-TV contract with Telepiu expires next summer. Although that contract had envisaged that future rights deals could be negotiated individually by clubs, last month the clubs and the league had attempted to form a consortium to negotiate a new six-year pay TV rights deal for all 38 clubs.

Canal Plus quickly preempted that move, and with the four big clubs deciding to go their own way, the future of a collective negotiation, even with the remaining 34 clubs, is now in doubt. Opponents of the Canal Plus deal may try to kill it. Already, the League has



Inter Milan meets AC Milan during their Italian Cup match AP

been urged by smaller clubs to try to block the contract at least until a broad TV rights deal involving all the teams has been negotiated.

Behind the controversy and financial manoeuvrings is the growing business focus of Italian football, which is now seeking to catch up with the trends in other European countries. Top Italian teams are

intensifying their efforts to develop merchandising and other commercial ventures which have been virtually non-existent in the past.

Many are also considering listing themselves on the stock market. Lazio, the Rome club, has already become the first club to float itself on the Milan bourse this year, and others are ready to follow.

## EdP surprises with 44.5% rise

By Peter Wise in Lisbon

Electricidade de Portugal, the national power utility and Portugal's biggest listed company, surprised analysts yesterday with a 44.5 per cent increase in first-half net consolidated profit to E82.4bn (\$348m), well above expectations. Earnings per share rose from E57.2 to E104.

Profit growth, reflecting a 5.5 per cent increase in electricity consumption, was supported by efficiency gains that helped produce a 1.6 per cent cut in overall operating costs, analysts said.

The shares rose E51.82 to E54.367. "This is a sound performance that indicates that the group's efforts to streamline operations are beginning to show results," said one Lisbon broker. "The outlook to the end of the year is also positive, as the fourth quarter is usually EdP's best."

Higher than average rainfall helped EdP cut costs, making it possible to produce more energy from hydro-electric plants and less from more expensive thermal power stations.

After being hit hard by foreign-exchange losses in the first-half of last year, EdP also benefited from favourable exchange-rate trends. But the group warned that production costs would rise in the second half because of weather conditions and the start-up in September of a \$550MW natural gas-fired power station, the biggest electricity generating plant in the Iberian peninsula, at Tapada do Outeiro in northern Portugal.

EdP is also expected to come under pressure to lower tariffs and improve service from a new regulatory framework, which is due to come into force next year.

## Paris bourse chief claims listings lead

By David Owen

The Paris bourse is currently the leading European stock exchange for new listings in 1998, "ahead of London and far ahead of Frankfurt", according to Jean-François Théodore, chairman of the Société des Bourses Françaises.

He said 98 companies had been listed on the bourse's three markets so far, with nearly 70 more being candidates for listing before the end of the year.

Speaking at a Paris conference of institutional investors organised by the French broker CCF Securities, Mr Théodore sought to score more points at the expense of his European rivals.

Two months ago, they shocked the French financial establishment by concluding an agreement to form a single European platform to trade equities.

He said there was "nothing today behind that deafening announcement

except the agreement on the announcement between two partners of which, paradoxically, the smaller - Frankfurt is half the size of London - dominates".

"In the vision announced by London and Frankfurt, there will in fact be no common pan-European platform with the same technology and the same regulation for three or four years, if it ever sees the light of day."

"The plans have not been drawn up, and neither one party nor the other envisages throwing away its trading system."

"The first step in interconnecting the English and German markets cannot come before mid-1999," he said.

"The two parties are still so perplexed on how to agree the plans for this common household," Mr Théodore added, "that they have decided not to communicate for six months to 'work silently' on the content of the agreement."

Royal KPN N.V., registered in Groningen, with its office in The Hague, The Netherlands.



## 1998 Interim Dividend

The Board of Management of Royal KPN N.V. (KPN) announces, with approval from the Supervisory Board, its decision to pay an interim dividend of NLG 0.80 in cash per ordinary share of NLG 10 par value over the 1998 financial year.

KPN is offering each shareholder a choice of payment of the 1998 interim dividend entirely in cash or entirely in the form of ordinary shares charged against the additional paid-in capital or, if the shareholder so elects, against the other reserves. The value of the dividend paid in shares will be 2% to 5% less than the value of the cash dividend. The number of dividend rights entitling the shareholders to a new ordinary share will be established at a round figure based on the closing price of KPN shares on the AEX Stock Exchange on September 24, 1998. As a result of trends in share prices for the period in which shareholders can make their election, the final proposal for payment in shares may deviate from the number indicated.

Payment of the interim dividend in shares charged against the additional paid-in capital will be exempt from dividend tax in the Netherlands. Payment in shares charged against the other reserves will in principle be subject to 25% dividend tax over the par value of the payment.

The schedule for the 1998 interim dividend is: September 3, 1998: Ex-dividend listing of KPN shares and starting date for stating preference of interim dividend payment options. September 24, 1998: Closing date for stating preference of interim dividend payment options (before the close of trading on the AEX Stock Exchange). Adoption (and approval by the Supervisory Board) of the proposal for the dividend in shares based on the closing price on September 24, 1998. Announcement of the interim dividend in shares after the closure of trading on the AEX Stock Exchange.

September 29, 1998: Payment of dividend and start of delivery of shares in connection with stock dividend conversion.

If you are a shareholder you should inform your bank or stockbroker where the shares are deposited before the end of the option period whether you wish payment of your dividend in cash or in shares. In general, your bank or stockbroker will indicate a preference on your behalf if you do not make your wishes known before the end of the option period.

Your bank and stockbroker is requested to submit the dividend rights which are the subject of their clients' dividend payment options to ABN AMRO Bank N.V. in Amsterdam, ING Bank N.V. in Amsterdam or Rabobank Nederland in Utrecht, no later than September 24, 1998 (before the close of trading on the AEX Stock Exchange). Shareholders whose preference has not been indicated will receive the dividend in cash after deduction of 25% dividend tax.

Payment of the interim dividend in cash and delivery of shares in connection with stock dividend conversion will start on September 29, 1998. The new ordinary shares entitle shareholders to the 1998 final dividend and the dividends of subsequent years. Delivery of ordinary shares to banks or stockbrokers will take place based exclusively on the total number of dividend rights delivered by the bank or stockbroker on September 24, 1998. Remaining fractions will be settled in cash.

Member firms of the AEX Stock Exchange will receive the compensation stipulated in the 90-56 circular for the conversion of dividend rights to enable shareholders to exchange their dividend rights free of commission.

The Board of Management,

The Hague, September 3, 1998  
23 Prinses Beendlaan



PHARMACEUTICALS ELF UNIT CLIMBS 12%

# Drugs sales and revamp boost Sanofi

By Mark Mulligan in Paris

Healthy sales of drugs and a shake-up at its beauty products business yesterday helped Sanofi, the French pharmaceuticals company controlled by oil group Elf Aquitaine, report a 12 per cent increase in underlying first-half profits to FF762m (\$130m).

Net profits, however, were down 20 per cent to FF65m because of one-off gains last year on the sale of a controlling stake in the troubled Nina Ricci fragrances brand and the disposal of diagnostics and generic drugs businesses. Capital gains in the first half last year were FF275m compared with just FF35m this time.

Jean-François Dehecq, chairman, was upbeat on the company's sales performance, but would not be drawn on a full-year outlook because of global economic jitters. "Quite frankly, who would take the risk of quoting figures for the end of 1998 knowing the great deal of uncertainty we are facing?" he said.

"However, we should not be hyper-pessimistic all the time - I think our results will be satisfactory by the end of the year."

Shares in the company, which constantly stars in market speculation on consolidation in the drugs or oil sectors, rose FF35, or 5.3 per cent, to FF690.

This was in sharp contrast to Tuesday's 5 per cent decline in the shares of rival Rhodia, the market leader in France, which Rhône-Poulenc, its parent, was yesterday at a loss to explain. However, Rhodia shares recovered most of their loss on optimism in the pharmaceuticals sector and a strong Paris share market.

Meanwhile, investor response to Sanofi reflected the 12.2 per cent jump in operating profits to FF71.74bn, built on a 6.5 per cent rise in sales to FF12.9bn. Healthcare contributed most of this, as drug sales rose 10.5 per cent.

The company noted a promising start to sales of Plavix, the thrombosis treatment marketed with Bristol Myers Squibb in the US, and of Irbesartan, the hypertension drug sold as Aprovel, Avapro and Karvea.

The beauty products business moved back into operating profit after a loss last year, as sales climbed nearly 10 per cent on a comparable basis to FF1.7bn. The Yves Saint Laurent and Oscar de la Renta luxury goods labels were the engines of growth.

The company said sales had improved in most of its regional markets, with all the main west European countries except France recording double-digit growth. France had been difficult because of fierce competition and state-imposed price pressures.

Sales to the US and Canada rose 18 per cent to FF900m, but slid 5 per cent in non-Japanese Asia. "Asia, of course, has to be watched," said Mr Dehecq. "But Asia (excluding Japan) accounts for a minuscule part of our revenues."

Analysts said Sanofi's operating results were ahead of expectations and welcomed the rise in gross margins. "Basically the results are very good and people are very good and people will be upgrading the shares," said one London analyst.

See Lex

# Gambro hopes to straighten its tangled medical lines

Swedish technology group likely to aim for simpler structure after disappointing growth on production side, writes Tim Burt

Gambro, the Swedish medical technology group, is considering a sweeping overhaul of the manufacturing, research and marketing activities behind its three main product brands.

The company - born out of Incentive, the main industrial arm of the Wallenberg business empire - is expected to tell institutional investors in London today that it hopes to simplify its organizational structure.

Mikael Liljus, chief executive, will cite the current complex structure as one of the main barriers to cutting production costs and improving margins at the group, which changed its name earlier this year from Incentive to Gambro.

The move marks the first significant restructuring of the Incentive business following its seven-year transformation from a loose industrial holding group - with interests as diverse as armoured vehicles and dehumidifying equipment - into a focused medical products business.

During that overhaul, Mr Liljus oversaw more than 70 transactions worth a total of SKr75bn (\$9.4bn) and disposed of all the non-core businesses. That left him with Gambro, the manufacturer of renal care products acquired by Incentive four years ago, and a growing presence in US renal care centres.

That exercise completed, most analysts were expecting strong growth from the medical technology business, where Gambro has become one of the world's largest suppliers of dialysis equipment and care services.

They have been disappointed. Although the provision of care services has enjoyed underlying growth



Mikael Liljus admits that the market has not been pleased

of 8 per cent, the production side - accounting for about 40 per cent of Gambro's turnover - has run into unexpected problems.

It has been forced to withdraw production of bloodline tubes used in dialysis treatment following the death of two patients in the US, and faces an investigation by the US Food and Drug Administration into alleged defects.

More worryingly, production of dialyser equipment at one of its main European plants has failed to meet US quality standards, forcing the group to buy products from rivals to meet demand in the world's largest healthcare market.

Costs incurred addressing those problems, which have yet to be fully resolved, helped to reduce second-quarter operating profits in

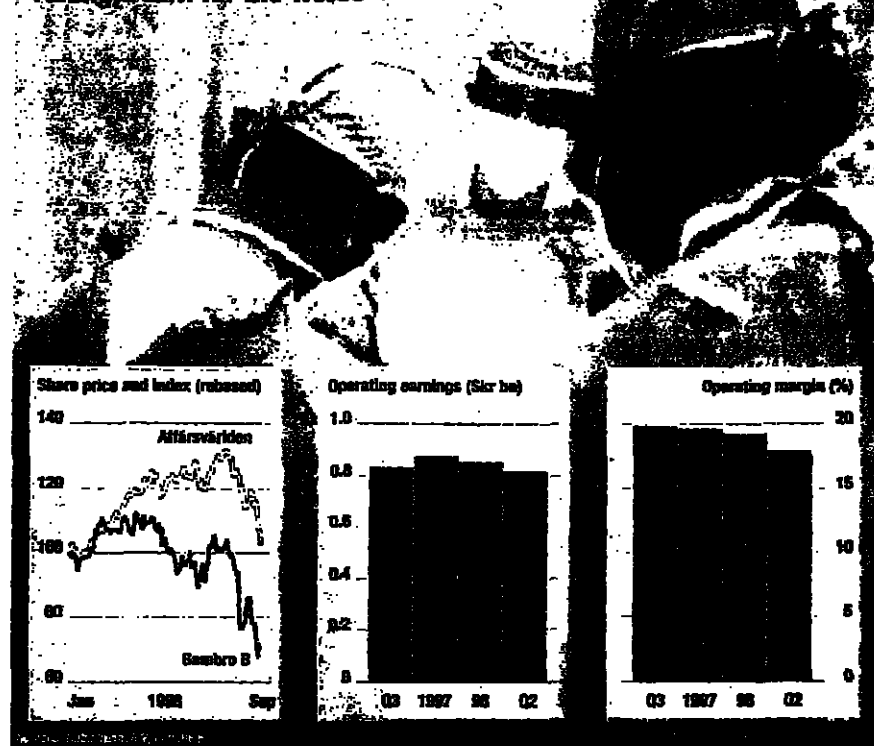
the medical technology business from SKr355m to SKr283m, while gross margins fell from 18.3 per cent to 18 per cent.

That dismayed the market, prompting a fall of more than 30 per cent in Gambro's share price since the results last month. Some analysts, moreover, have questioned whether the management took its eye off the medical business during the incentive overhaul.

"Mikael Liljus has done a fantastic job of restructuring Incentive but he does not have a track record of running a growth business. The initial couple of months as a new company have been very difficult," says Jim McKean at Morgan Stanley Dean Witter in London.

That view is echoed at Merrill Lynch, where

Taking a turn for the worse



Andreas Tholstrup says the second-quarter figures were almost 10 per cent below expectations.

Mr Liljus, who admits "the market has not been pleased", will try today to reverse such bearish sentiment by outlining his strategy to sort out the problems.

Of the factors denting profitability, he will tell investors that Gambro has resolved the bloodline production problem - although the FDA inquiry continues. "We also know we can solve the problems at the European plant, even if the financial benefits will not be seen for some time."

Now Mr Liljus says Gambro is ready to address the more fundamental problem of its complex three-level manufacturing structure.

At present, the production arm of the business is based around three distinct brands: Gambro the original Swedish renal care company; Hospal, the Swiss medical equipment business acquired for \$187m in 1987; and Cobe

Laboratories, the dialysis company bought for \$233m in 1990.

"They have been run almost as three separate companies up to now with distinct manufacturing, logistics and R&D," says Mr Liljus. "We must integrate behind these brands and ask ourselves whether we need to have dedicated plants in each area."

If Gambro could eradicate duplication in management, purchasing and production, it could wipe out the "complexity cost" which has hurt margins.

Mr Liljus certainly has the financial engineering expertise to do that, but he must tread carefully to avoid damaging the brand value of each business.

Meanwhile, he is likely to tell UK investors - who account for almost 6 per cent of the shareholder base - that the group is re-evaluating its commitment to cardiovascular businesses, which contributed combined sales of SKr1.14bn in the first half.

"We either need to take part in consolidation in this area or exit altogether. A decision is needed - doing nothing is not an option," says the chief executive.

Mr Liljus admits Gambro's management could have addressed these problems earlier, but he adds: "It is always easy to be a Monday morning quarterback. Now we are a pure medical technology play we can see what needs to be done."

At the back of his mind, he knows Gambro will have to resolve such problems before it can contemplate a US listing.

The company, which has signalled its intention to list in New York in the medium term, has drawn up plans for presentations and briefings in North America this autumn in the first step along that path.

In the meantime, Mr Liljus emphasises that costs will be cut and margin pressure reduced. "We have not done enough and have not done it fast enough. That will change."

# ABN Amro strengthens Alfred Berg

By Clay Harris in London and Tim Burt in Stockholm

ABN Amro, the Dutch bank, has moved to shore up Alfred Berg, its Nordic investment banking subsidiary which had been hit by recent senior defections to a Swedish rival.

Risto Silander, global director of Nordic equities for Swiss-owned Warburg Dillon Read, is moving to Alfred Berg ABN Amro as managing director in Stockholm.

Mr Silander had played a leading role in building WDR's Nordic franchise.

WDR analysts ranked third behind Alfred Berg and Enskilda Securities, the investment banking arm of Skandinaviska Enskilda Banken, for coverage of Sweden and Denmark, according to Exel's 1998 survey of fund managers.

Alfred Berg has also recruited Lars Lindberg from Enskilda Securities, and promoted Lars Molander from its healthcare team to bolster its M&A operations after three top-level defections to Enskilda.

ABN Amro also named Claus Gregerson head of its European equity business. Mr Gregerson, managing director of Alfred Berg ABN Amro in Denmark, succeeds

Nick Bannister, who last week was appointed head of the global equities business.

Mr Bannister said yesterday Mr Gregerson's role was "very significant" as ABN Amro moved to strengthen its position in Europe.

Mr Gregerson is replaced in Copenhagen by Henrik Heideby, head of Alfred Berg's corporate finance activities in Denmark.

Mr Silander's defection comes less than a week after he hosted a Nordic banking seminar in which he stressed WDR's commitment to the region. His departure follows that of Casper von Koskull, who recently quit WDR to join Goldman Sachs.

The US investment bank, which announced yesterday it was establishing a Nordic office in Stockholm, said it was actively expanding in northern Europe.

Peter Sutherland, Goldman's European chairman, said: "Through the new office, Nordic clients will be able to access better the full range of investing, advisory and financial products and services provided globally by the firm."

WDR said Henrik Soderstrom, its chief operating officer in Stockholm, would run the Swedish office pending a review of Mr Silander's former responsibilities.

# Premium growth lifts Eureko

By Mark Mulligan

Eureko, the holding company of the pan-European insurance and financial services alliance, yesterday posted a 67.5 per cent rise in first-half net income to F182.9m (\$42m), reflecting growth in premium income and investments across its member companies.

The result, which lifted earnings per share from F176.9 to F110.3 and return on equity two percentage points to 9.9 per cent, came as the company announced its first foray into Poland, via an asset-management joint venture with Bank Gdansk.

Eureko was established in 1992 by Achmea of the Netherlands, the UK's Friends Provident, Topdanmark and Swedish financial services group Länsförsäkrings Wasa. The following year they were joined by BCP of Portugal and, in 1996, by Gothaer - now known as Parion - of Germany.

The alliance was formed with an eye to cross-border consolidation in European insurance and financial services. Through its partners and subsidiaries, it is represented in 13 European countries, as well as the US and Canada.

# Investments lift Swiss Re

By William Hall in Zurich

Swiss Re, one of the world's biggest reinsurance companies, increased its first-half net income by 51 per cent, to SF1.7bn (\$1.2bn), with a SF1.3bn jump in the profits from its investment portfolio more than offsetting the need for extra provisions to cover losses on its US medical reinsurance business.

The SF1.3bn investment result overshadowed the weakness of the group's first-half gross premiums, which fell 1 per cent to SF1.9bn. In the first six months of 1997 the group increased its investment result by 38 per cent to SF1.7bn, and the 68 per cent increase in the current half year reflects "extraordinarily high realised gains" on investments of SF1.5bn,

helped by strong stock and bond markets.

The market value of invested assets rose 8 per cent, to SF81.3bn. Net unrealised losses remained low and, adjusted to a yearly basis, the return on investments was 10.1 per cent, compared with 7.6 per cent in the first half of 1997.

Non-life reinsurance premiums fell 7 per cent, to SF6.9bn. The decline was due to a reduction in premium income in health reinsurance business, a continuous shift from proportional to non-proportional covers, and the effect of lower premium rates.

These factors more than offset the 24 per cent rise in life reinsurance premiums to SF2.2bn, and the inclusion of Swiss Re Italia for the first time.

The non-life technical result (before allocated investment return) moved from minus SF644m to minus SF1,011m and the combined ratio, the sum of the claims ratio and expense ratio, rose to 116 per cent.

The main reason for the deterioration was the US medical business, which showed a "significant adverse development" in the first half of 1998. Swiss Re has added SF300m to provisions to meet expected losses and has decided to cease writing this product in the US. Excluding the losses on the US medical business, the non-life combined ratio was 111 per cent.

The group expects to increase its full-year earnings but has warned the growth rate will be lower than in the last three years.

## US group pays \$42m for Medco

Pharmacia, a US pharmaceutical company, has agreed to buy Medco, a US pharmaceutical company, for \$42m.

## GLAS

GlaxoSmithKline (GSK) has announced that it has agreed to acquire a 100 per cent stake in Glaxo, a UK pharmaceutical company, for \$42m.

## FOOD AND FEEDS

Ralco, a US food and feed company, has announced that it has agreed to acquire a 100 per cent stake in Ralco, a UK food and feed company, for \$42m.

## NETHERLANDS

Krasnapolsky, a Dutch hotel chain, has announced that it has agreed to acquire a 100 per cent stake in Krasnapolsky, a UK hotel chain, for \$42m.

## NEWS DIGEST

The news digest for the week of September 3, 1998, includes the following items:

## Tabacalera in distribution spin-off plan

Tabacalera, the Spanish tobacco company, has announced that it has agreed to spin off its distribution business into a separate company.



## COMPANIES &amp; FINANCE: THE AMERICAS

BANKING CHASE MANHATTAN ESTIMATES WRITE-OFFS OF \$200m IN THIRD QUARTER

## Chase and DLJ warn on profits

By William Lewis in New York

Chase Manhattan and Donaldson, Lufkin & Jenrette yesterday joined the list of US financial institutions that have warned of the negative impact of market turbulence on third-quarter profitability.

Chase said that over the past two months it had made trading revenues of \$160m, after losses mainly related to Russia. In the second quarter of this year it made revenues from trading of \$517m, and it is thought that in August Chase's trading profits were close to zero.

Its statement said that "adverse conditions in the equity markets" meant Chase Capital Partners, its private equity division, made no gains in July and August. This compares with a monthly revenue average of \$90m for the division.

"Our disclosure is comprehensive, picking up on global markets not just Russia," said Dina Dublon, executive vice-president and treasurer. "We are still looking to make a substantial amount of money in the third quarter."

The disclosure is likely to affect analysts' forecasts for the current quarter, although Chase will be aided by the continuing profitability of its commercial banking and global services operations.

Chase also said its estimated commercial write-offs for the third quarter would be about \$200m, net of recoveries. It has a continuing Russian exposure of about \$460m, of which \$250m is direct Russian credit exposure.

DLJ said it had earned pre-tax income of \$40m for the

first two months of its third quarter, which ends on September 30. In the third quarter of last year, it earned income before provision for income taxes of \$188.1m.

"The results for the first two months of the quarter were impacted by adverse trading conditions in the global marketplace and turmoil in Russia," DLJ said, but declined to provide any further details.

In morning trading in New York, Chase shares rose \$2 1/4 to 4.91 per cent to \$57 3/4; DLJ rose 7/8 to \$33 1/2.

On Tuesday, after the

stock market had closed, Citicorp said total Russia-related losses, including trading, would cut its after-tax third-quarter earnings by about \$200m. It also warned that any continued weakness in global markets would affect the contribution to earnings by other parts of its business.

In another post-market close statement on Tuesday, Morgan Stanley Dean Witter, the investment bank, said its third-quarter consolidated net income would be cut by \$110m.

## Case in link with Sumitomo subsidiary

By Nikki Tait in Chicago

Case, a leading manufacturer of agricultural equipment in the US, has entered a joint venture and supply agreement with the construction machinery arm of Japan's Sumitomo group.

The two companies will manufacture and market excavators in North America under a 50-50 joint-venture arrangement and sell Sumitomo excavators through Case's dealer network in Europe, Latin America and Australia.

The groups said yesterday that they would "explore opportunities to further expand the alliance in Asia".

The Japanese company previously had a joint venture with JCB - one of the largest privately owned manufacturers in the UK - covering European markets. JCB said yesterday that this arrangement, which included local manufacturing and employed about 250, had been dissolved.

It said discussions on a three-way arrangement between Case, Sumitomo and JCB had foundered partly on the UK company's desire for access to the US market, the largest market for excavators. Instead, JCB is stepping up its US presence with plans to build a wholly owned construction equipment plant in Georgia.

The new Case/Sumitomo joint venture in the US will include the excavator arm of Sumitomo's Link-Belt construction equipment business in Kentucky, while Case will contribute marketing resources and unspecified cash.

The US company already sells seven excavator models in North America designed by Sumitomo, and machines will continue to carry the Case brand.

Outside the US the new arrangements will be based on a supply deal, pushing Sumitomo models through the Case network.

The US company said the deal "reinforces our commitment to the excavator business" and would give it a larger share of the construction equipment market. Sumitomo's construction machinery arm currently has annual sales of \$1.1bn.

## NEWS DIGEST

## TELECOMS EQUIPMENT

## Ciena, Tellabs put back vote on \$4.7bn merger

Fresh doubt was cast on the Ciena/Tellabs merger yesterday, when the two telecommunications equipment makers said the shareholder votes on their revised \$4.7bn deal would be held later than expected. The two companies said they hoped to hold the shareholder votes in November, instead of in September as previously expected. The delay was attributed to regulatory requirements.

The news sent both companies' shares down - Ciena lost 3/4% to \$29 1/2, while Tellabs fell \$1 1/2 to \$44 1/4.

Steve Levy, a telecommunications equipment analyst with Lehman Brothers, said: "There are some that are worried that the longer you wait, the more uncertainty you have. And given what has happened over the past few months, it seems reasonable to believe that something could pop up."

The revised deal, cutting its value from \$7.1bn, had been widely expected after Ciena warned its third-quarter earnings would be lower than expected.

Reuters, New York

## INTERNET

## Yahoo! rallies after promotion

Internet stocks rallied yesterday as Yahoo!, the leading internet site, was promoted to the ranks of the Nasdaq 100 Index. Yahoo! is replacing MCI, the long-distance telephone operator merging with WorldCom.

The news sent its stock price up 13.5 per cent to \$82, giving the company a market value of \$6.8bn. Other stars of the internet sector also pulled back some of the ground lost over the past few days, although most are still well below their highs. Amazon.com, the online book retailer, which nearly halved in value from a high of \$147 to close on Tuesday at \$79 1/2, yesterday jumped 17 per cent to \$93 1/2. Excite, the number-two internet site and one of the worst hit stocks in recent days, saw its shares bounce back by 22 per cent to \$29, compared with a high of \$55.

The sector was also helped on Tuesday by the news that Warburg Dillon Read, the investment bank, had started coverage of five leading internet stocks with a strong buy recommendation on Netscape and a buy recommendation for Excite, Lycos and Yahoo!. The company's target share price for Yahoo! was \$85.

Roger Taylor, San Francisco

## CASINOS

## Horseshoe Gaming in \$600m buy

Horseshoe Gaming is to expand from its southern US base into the mid-west with the \$600m purchase of Empress Entertainment, a leading casino operator in the Chicago area. The deal ends an auction which attracted attention from big gambling corporations including Hilton and MGM-Grand, which is currently building a new casino in Chicago.

Although Hilton recently bought Grand Casinos in Mississippi, the larger groups have tended to prefer building venues to their own specifications. However, yesterday's deal could spur more interest among industry leaders in buying smaller companies, especially in regional markets. Mississippi is the third largest gaming market after Las Vegas and Atlantic City, and Chicago ranks fourth.

Horseshoe, which is privately owned and based in Las Vegas, said combined revenues of the new four-casino group, would be about \$800m this year.

Christopher Parkes, Los Angeles

## Primark's suffering blamed on auction failure

John Gapper looks at how the financial data group is attempting to restore investor confidence

It has been a bumpy ride for investors this year in Primark Corporation, a little-known Massachusetts company that owns some of the best-known brands in financial data and whose value has swung between \$1.2bn and \$300m.

Primark's rise and fall was caused by its move to put itself up for auction last December, only to find the industry's largest companies had other things on their minds. "Somewhat to our surprise, very few people came to our party," said Joseph Kasputys, chairman and chief executive.

Failure to find a buyer upset a few investors along the way. The arbitrageurs who bought into Primark in the hope it would be sold at up to \$50 a share - more than a quarter of its shares changed hands at more than \$40 a share early this year - were irate at the outcome.

The shares slid back to the high 20s before Primark announced on May 13 that it would not be sold, leaving investors high and dry despite a buy-back of 4.5m shares at \$34.50 each. "One thing about investing is that sometimes you have to take a bet," says Mr Kasputys.

Now Primark faces the painful task of trying to convince customers and investors that it can become a

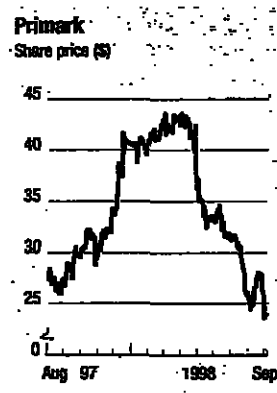


Joseph Kasputys: optimistic

rival to financial information giants such as Reuters and Bloomberg by integrating products such as Datastream, Disclosure, Worldscope and IVC.

Not everybody is convinced that this is a long-term strategy. "Once for sale, always for sale," says one New York media analyst. "They have a lot of good content, and a decent beach-head in the US, but they are not really of a size to compete directly with Bloomberg."

Such scepticism is born of the company's curious history. When Mr Kasputys became its chief executive a decade ago, it gained most of its revenues from being a gas utility in Michigan. It also owned a trucking unit,



Source: Datastream/ICI

embarked on a buying spree, starting with Datastream from Dun & Bradstreet.

Opinions vary on whether Tasc - which is mainly engaged on secret defence work - has helped Primark's efforts to build a financial information brand. Mr Kasputys says the technical expertise of key Tasc staff helped in updating technology at Disclosure, but rivals are sceptical.

In any case, the question soon became academic. In the first quarter of last year, cracks started to appear with the decision to slim down Datsa, a French financial information business it bought in June 1996, and its aircraft maintenance arm Timco was hit by a labour shortage.

When Primark disclosed its first-quarter earnings, its shares fell from around \$35 to \$17.50. "It was a \$6m problem, and it cost half our market capitalisation. We had bought a series of businesses and the market was worried trouble might break out elsewhere," says Mr Kasputys.

With its shares in the doldrums, other financial information groups started to hover. It entered talks with one - thought to be Reuters - but found Tasc was in effect a poison pill owing to

security restrictions applying to non-US companies.

By the end of last year, Primark had decided it had to sell Tasc to make sense of its business and have a hope of selling other operations. On December 8, with the announcement of the Tasc sale came a strategic review and the appointment of investment bank BT Alex Brown as adviser.

However, the timing was poor. Although its share price shot up in the expectation that it would sell, large financial information groups were tied up with the sale by Dow Jones of Telestar, while Reed Elsevier and Wolters Kluwer were in the middle of trying to merge.

By April, Mr Kasputys had decided against selling the operations. "We did get some offers, but not from the major hitters. We felt we had to bring this process to an end, because it had already gone on much longer than we had wanted," he says.

Now Primark must show it can create more value than it might have done through a piecemeal sale. Mr Kasputys emphasises that with the disposal this year of both Tasc and Timco it has capacity to raise up to \$400m in debt.

The company took an important step in June by creating three divisions from its dozen operations. It is now working on uniting them more effectively by using technology, and also marketing them in a way that makes the Primark name better known.

## Life groups face hard times

By Edward Alden in Toronto

Canada's life insurance market will be increasingly polarised between strong companies able to thrive in a more competitive market and marginal companies that will need to look for "exit" strategies, according to an industry review by Standard & Poor's, the ratings agency.

The demutualisation by four of Canada's top five insurance companies, expected next year, will further accelerate the transformation of the industry.

In the past year, most foreign insurers, including Metropolitan Life and Prudential Insurance, have left the Canadian market because of disappointing returns on equity as it became highly competitive, with overcapacity, stagnant sales and an ageing population.

In its review, S&P downgraded ratings on Mutual Life Assurance, and revised its outlook downward on Canada Life Assurance.

Neil Strauss, analyst with S&P, said the downgrading

of Mutual Life from AA+ to AA reflects the company's heavy dependence on the Canadian market. Its business is focused on the mature and low-growth individual life insurance market in Canada, which is exposed to strong competition.

Canada's four large mutual insurance companies have each announced plans to demutualise, following last year's C\$2.9bn (\$US1.9bn) purchase of London Life by Great-West Life, the only stock company among Canada's big insurers.

That purchase made Great-West Canada's largest insurance company, while the four mutual companies could not enter the bidding. S&P says new debt guidelines on demutualisation announced by the federal government last week would prevent a rapid realignment of the industry, but that change will occur at a slower pace nonetheless.

Ottawa proposes that shareholders be allowed to buy no more than 10 per cent of demutualised companies over the next two years.

## The what, not the where, to drive P&amp;G

The emphasis is on getting new products to market quicker, writes Richard Tomkins

Innovation is Procter & Gamble's lifeblood. But lately, the company has become worried that its flow of "new, improved" products needs to be bigger and faster if the company is to meet its ambitious growth targets.

In the next few weeks P&G will unveil detailed plans for its second big reorganisation in recent years - this time, realigning the company around its laundry detergents, nappies and shampoos instead of running it on geographical lines.

At present, P&G is split into four regional divisions, each responsible for its own profits and losses. In order of size, they are North America; Europe, Middle East and Africa; Asia; and Latin America.

But the company has decided it can respond more effectively to consumers if it is divided into global business units, each taking responsibility for the profits and losses of a different product area throughout the world.

Each global business unit, the company says, will have all the resources it needs to understand consumer needs in its product area and to develop innovative products that meet those needs.

Their output will continue to be marketed by local, country-based organisations,



John Pepper: "It's one thing to invent these things..."

but these marketing operations will be strengthened to maximise the impact of the products the new units are expected to develop.

There are two other main aspects to the plan. One is the creation of a global business services organisation that will provide support services such as accounting and data management. The other is a "streamlining" of the headquarters operation, as some corporate functions are realigned with the global business units.

Some job cuts seem inevitable, and there will probably be a restructuring charge. But the reorganisation will be different from

the last one in 1993, when 30 plants were closed worldwide and 13,000 jobs cut. "That was designed to cut costs to make P&G's products more competitive. In contrast, the latest plan is aimed at increasing revenues by making the company more responsive to the marketplace."

Earlier this year, John Pepper, chairman and chief executive, hinted at changes to come when he stressed the importance of shortening the time taken to bring new products to the market.

"It's one thing to invent these things; it's another to get them into the market faster," he said in an interview. "We know we have to reduce our lead times from identification of technology and product application to taking the product globally. We need to compress that by orders of magnitude, cutting it in half."

Yesterday, P&G said the planned reorganisation was a continuation of the strategy it adopted in the 1980s when it moved from brand management to category management, and from there to the management of categories on a global basis.

"In the late 1980s we established global category management, where we began

planning on a global basis. But responsibility for the profit and loss - which means a lot of the resource still made regionally," it said. "We are moving to global business units that are aligned around product lines with full profit-and-loss responsibility, so that planning for each global business can be implemented on a global basis."

An outline of the plan emerged this week in a letter to shareholders contained in P&G's latest annual report. Mr Pepper and Durk Jager, president and chief operating officer, say in the letter that P&G needs to accelerate its progress significantly if it is to achieve its goal of doubling sales in 10 years.

To meet that goal, P&G would need to increase revenues at a pace of 7 per cent a year. But in its financial year ending June 30, it increased revenues by only 4 per cent to \$37.2bn, triggering shareholder worries that the target would be missed. But Mr Pepper and Mr Jager say P&G "can and must do better". "We know the key is faster, bigger innovation in every part of our business," they say. "We must bring even better products to more markets with greater speed than ever before."

## ERRATUM

It is noted that, in the invitation published yesterday regarding the purchase of 25,100,000 shares in Duty Free Shops S.A. the time and date for submission of offers was erroneously stated as 20 September 1998 from 14:00 to 15:00, instead of 30 September 1998 from 14:00 to 15:00.

**ALLIANCE LEICESTER**  
Alliance & Leicester Building Society  
£200,000,000  
Fixed Rate Home Loan 2000  
Variable interest rate 2.25% above Bank of England base rate of 4.75% per annum until 10th November 1998 then the Bank's rate plus 1.75% per annum with interest payable monthly.  
£200,000 per £100,000 principal, payable by 10th November 1998.  
Lent on the Long Term Fixed Rate.  
Bankers' Trust Company, London Agent Bank

**US \$400,000,000 AXA-UAP**  
Subordinated Perpetual Swap Note  
For the period from September 3, 1998 to December 3, 1998 the Note will carry an interest rate of 4.50% per annum with an interest payment date of September 3, 1999.  
The relevant interest payment date will be December 3, 1999.  
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The relevant interest payment date will be December 3, 1999.  
Agent Bank: **BANQUE PARIBAS**

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## HONG KONG PROPERTY-TO-INFRASTRUCTURE CONGLOMERATE AT LOWER END OF MARKET EXPECTATIONS

## Wharf net profit slides 39% at halfway

By Louise Lucas in Hong Kong

Wharf (Holdings), the Hong Kong property-to-infrastructure conglomerate, yesterday reported a 39 per cent fall in first-half net profits, from HK\$2.33bn in the first six months of 1997 to HK\$1.36bn (US\$175m).

However, last year's results were boosted by an HK\$900.5m exceptional item, and profit at the operating level dropped a more modest 21.19 per cent, from

HK\$1.94bn to HK\$1.45bn.

The results, at the lower end of market expectations, follow a similarly dismal clutch of results from Hong Kong blue-chips. Fellow conglomerates such as Hutchison Whampoa and Citic Pacific, the listed arm of Beijing's main investment vehicle, reported steep declines in earnings last week, reflecting the economic slowdown and plunging property prices.

Wharf, which traditionally derives 70 per cent of its earnings from property, said it expected rental income this year to match last year's billings for the existing investment property portfolio. New office, retail and apartment developments are due to come on stream next year.

With regard to property development in mainland China, the company said it would focus on Shanghai and Beijing. At the end of June, the combined total exposure to its three property projects in China was about HK\$3bn, it said.

The group's cable TV venture started to generate net operating profit from February, as revenues grew 35 per cent and operating expenses fell 3 per cent over the year. Gonaga Li, chairman, said: "Continued efforts have been made to streamline its operations; costs have been controlled at lower levels than planned and free cash-flow profit is expected by

2000. Wharf Cable will need

no further cash funding from the group and its operating cashflow can more than cover its own capital requirements."

On the infrastructure side, Modern Terminals, Wharf's port interest, posted 20 per cent growth in the first half and in July handled a record number of containers.

Earnings per share fell 39 per cent, from 97 cents to 59 cents, and the dividend is held at 28 cents.

Wharf Holdings

Share price (HK\$)

Source: International

Sep 97 1998 Sep

## Insurance groups get a life in Vietnam

Policy sales are growing but local companies face foreign competition, writes Jonathan Birchall

In his ramshackle office on Hanoi's busy Phan Dinh Phung Street, 40-year old Nguyen Quoc Khanh is at the front line of a small revolution in Vietnamese personal finance.

Mr Khanh works for the state-owned Bao Viet Life Company, set up less than two years ago, and heads a team of 20 agents whose mission is to introduce Vietnamese consumers to life assurance policies.

"Because life-assurance is a new idea, we have to go out and look for the customers," he says. "The agents sell first to their friends and relations, then they go house to house, and they visit companies and government offices to explain their product."

Vietnamese customers seem to like what they hear. Mr Khanh says his top agents can sell 15 to 20 policies a month, mostly five-year endowment or education savings policies. In 1997, the first full year of Bao Viet Life's operations, the company had 1,000 agents, who sold just 36,500 policies.

In the first six months of this year, the number of agents had risen to 2,600, and the total of new policies sold had jumped to 121,000.

Vietnam's average annual per capita income may be just above \$300, but Mr Khanh says that 12 per cent of his business is for policies with an annual premium of 10m dong (\$720).

By international standards, Vietnam's life assurance market is tiny, with total premium worth just \$5m in the first half of the year, while the total general insurance market was worth just over \$100m last year.

But Bao Viet Life's initial successes underline the lure of the Vietnamese market. A population of 77m and the prospect of long-term growth have persuaded some 30 foreign insurance companies to open offices in Hanoi and Ho Chi Minh City over the past four years, most hoping eventually for direct access to the market.

So far it has been a long wait. Only two foreign joint ventures have been allowed, with both restricted to providing general cover for foreign-owned companies in Vietnam. However, in May the Communist Party dropped its opposition to 100 per cent foreign-owned insurance companies, which in theory are already allowed for in existing law.

Officials have suggested that one or two licences for foreign-owned companies could be granted by the end of the year.

The Vietnamese market remains dominated by Hanoi-based Bao Viet, which controlled the entire market before reforms introduced in



Hope and a prayer: a 77m population has led 30 foreign insurers to open offices in Vietnam. Sarah Murray

1994, and by Bao Minh - based in Ho Chi Minh City - which was formed out of Bao Viet's offices in the south.

Together, the two companies control more than 85 per cent of the market, with about 12 per cent held by a mixture of state and private companies.

Foreign companies represented in Vietnam have been active in reinsurance, with on average 35 per cent of all

training courses and consultancy services.

AIG, regarded by many in the industry as the most likely recipient of the first 100 per cent foreign licence, invested in the development of an industrial park in Hai Phong; France's Axa-UAP played a key role in setting up a substantial French-backed training programme; and in early August, Prudential of the UK announced it

"There's no doubt that there's been a lot of pressure from individual companies and from governments," says one foreign executive in Hanoi. "But I think the government also feels that it has to do something to keep investor interest here."

Allowing some foreign direct access to the market would also ease pressure from the US and Europe.

The EU has been funding an extensive training and co-operation programme, and European diplomats say they are expecting at least one new 100 per cent licence to go to a European company. US companies are also a powerful lobbying force in the continuing negotiations with Washington over a possible trade agreement, pushing for market opening.

The main foreign operators are now waiting to see whether they get a chance to compete with Mr Khanh and Bao Viet Life. Veterans of the market remain cautious. "They said they would allow 100 per cent foreign companies 'soon'," says one foreign industry expert. "But you have to ask yourself what soon means in the Vietnamese context."

## Ayala and C&amp;P suspend share swap

Ayala Land, the Philippines' leading property group, and C&P Homes, the low-cost homebuilder, have agreed to "indefinitely suspend" their 3.6bn pesos (\$83m) share swap agreement, AFP-Asia reports from Manila.

The companies said the decision was mutual and in the best interests of the shareholders of both parties. The current share price of C&P Homes "pre-empted the transaction from proceeding

since it was no longer indicative of the true value" of the group.

Ayala Land was to have acquired shares in C&P Homes equivalent to 38.4 per cent for 2.25 pesos each. Yesterday, shares in C&P Homes closed up 0.02 pesos at 0.77 pesos.

Henry Ong, of Sapphire Securities, said the suspension of the share swap deal should benefit Ayala Land as it would not have to shell

out funds for such a "risky" undertaking.

He said Ayala Land would probably pursue other acquisitions to exploit the low valuation of land amid the current economic crisis. "Ayala Land is not likely to keep the funds intended for C&P Homes. It is likely to continue to look for other opportunities. It wants to take advantage of the present situation, where many are selling at a very cheap price."

Another analyst said it was uncertain whether the share price was the only factor preventing the companies from carrying out the arrangement.

He said the market was kept in the dark on the real financial state of C&P Homes as the group had failed to submit quarterly results to regulatory authorities since Ayala Land began a due diligence audit of the company early this year.

## Sapporo to cut staff by 30%

By Alexandra Harvey in Tokyo

Sapporo Breweries, Japan's third largest beer company, is to cut its staff by nearly 30 per cent, reduce the number of board members, and review its product development and management strategy in an attempt to improve profitability.

The group, which saw its share of the Japanese market shrink 0.5 per cent to 16.1 per cent in the first seven months of this year, will eliminate 1,000 jobs by 2001, mainly through accelerated retirement and a freeze on hiring. The company currently employs about 3,800.

Sapporo said that as a result of the job cuts, beer output would rise to 1,900 kilolitres per worker by the end of 2001, up from 950 kilolitres in 1997.

The company would not specify how many of its 25 board members would be asked to step down. Sapporo has already decided to close two factories by 2002.

Two planning councils would be formed this month "to reconsider our product strategy", the company said. It also announced plans to

accelerate deliveries and launch a new low-malt beer in October.

Sapporo's moves are part of a larger restructuring already announced and follow similar plans by its rivals, Asahi Breweries and Kirin Brewery, earlier this summer.

Last week, Asahi said it would cut 20 per cent of its headquarters staff while Kirin plans to cut 1,800 factory jobs and close three plants this year.

Competition between the three groups has intensified recently as the collapse in consumer demand has squeezed sales. In July alone, beer shipments fell 13.5 per cent year-on-year, according to Goldman Sachs.

Sapporo, which shipped 11.4 per cent fewer cases in the first seven months of this year, had not yet adequately addressed its overcapacity problem, analysts warned.

"I look at their restructuring plans, and I don't see anything particularly remarkable...they need to cut costs much more, and close at least two more factories," said Yuji Fujimori, of Goldman Sachs in Tokyo.

## NEWS DIGEST

## BUILDING MATERIALS

## Asia problems hurt Boral in full year

Boral, the Australian building materials and energy group, yesterday reported a net profit before abnormal items in the year to end-June of AS\$200.4m (US\$116.4m), in line with forecasts.

An abnormal pre-tax charge of AS\$117.9m led to a net profit after one-off items of AS\$85.97m compared with last year's AS\$403.43m. The abnormal charge arose from write-downs and provisions associated with the Asian division. Peter Cottrell, chairman, said the Asian economic downturn continued to make trading conditions in the region extremely difficult. "Boral expects to make losses again over the next year from its Asian businesses," he said. Sales for the full year slipped from AS\$4.73bn to AS\$4.70bn. APX-Asia, Sydney

## NEW ZEALAND AIRPORTS

## AIA ahead of forecast

Auckland International Airport, which was partially floated by the New Zealand government last month, yesterday reported a profit of NZ\$41.09m (US\$21m) for the year to June 30, slightly better than the prospectus forecast.

Revenues rose 10.3 per cent to NZ\$154.5m, in spite of a 3.3 per cent fall in international aircraft movements and a 1.1 per cent drop in incoming passengers because of the Asia downturn. The increase in revenues stemmed largely from higher rents from the expanded airport building. Wayne Boyd, chairman, said directors expected to meet future prospectus forecasts - made last month when the government sold its 51.6 per cent - despite the budgeted 7 per cent drop in Asian tourism. Terry Hall, Wellington

## AUSTRALIAN BANKING

## NAB chief sees foreign threat

Australia's banking and finance industry is vulnerable to foreign takeovers, with a low Australian dollar leaving local companies exposed to predators from the US and Europe, said Don Argus, chief executive of National Australia Bank, the country's largest.

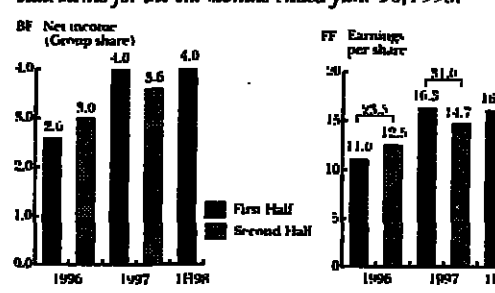
"The US financial industry is only just starting to look outside its boundaries," he said. "I know there are banks in the UK that understand what a global strategy is all about...and we're starting to see some of the Europeans now extending into this particular region."

Mr Argus criticised a government ban on bank mergers among the country's four largest banks, known as the "four pillars" policy, warning that it left Australian banks particularly exposed to foreign takeovers. Mr Argus has long argued that Australia's leading banks are too small to compete on a global basis and need to be allowed to merge to increase their size. He is due to step down from NAB early next year to become chairman of Broken Hill Proprietary, the resources group. AP-DJ, Melbourne

## TOTAL FIRST HALF 1998 RESULTS

## TOTAL REPORTS FIRST HALF NET INCOME OF 4 BILLION FRANCS DESPITE THE FALL IN CRUDE OIL PRICES

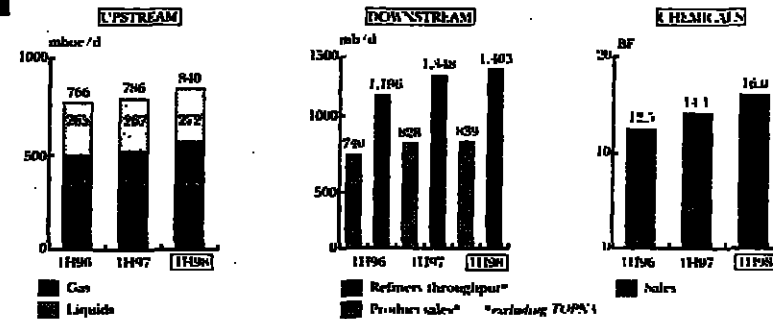
TOTAL's Board of Directors, chaired by CEO Thierry Desmarest, met on September 1, to review the consolidated financial statements for the six months ended June 30, 1998.



Group sales for the 1998 first half amounted to 82.3 billion francs, a decline of 14 percent versus the same period last year (or an 8-percent decline excluding the merged TOPNA unit).

Consolidated net income for the 1998 first half was 3,972 million francs, stable compared to the 1997 first half. Earnings per share were 16.1 francs based on a fully-diluted weighted-average number of shares outstanding of 246.1 million shares in the 1998 first half.

## Key figures



## Different trends for the business segments

Operating income from the business segments for the 1998 first half was 6,601 million francs, a 6-percent decrease versus the 1997 first half.

The average Brent crude price fell by 30 percent to \$13.63 in the 1998 first half versus \$19.58 in the 1997 first half. The dollar rose by 6 percent to 6.08 francs versus 5.70 francs, and average refining margins in Europe increased by 5 per cent to \$17.1/ton as compared to \$16.1/ton.

Taken together (the dollar exchange rate, crude prices and European refining margins) the environment had a negative impact of 1.7 billion francs on operating income. This impact was partially offset by 1 billion francs from growth and productivity gains in all of the Groups segments and by other specific elements totalling 0.3 billion francs.

Gross investments in the 1998 first half rose by 19 percent to 10,879 million francs from 9,116 million francs in the 1997 first half, due to the many developments in the Upstream segment. Divestments, based on sales prices, in the 1998 first half were composed primarily of financial participations and amounted to 2,084 million francs versus 884 million francs in the 1997 first half.

## Outlook

TOTAL demonstrated its ability to resist falling crude prices in the first half of 1998. Despite the currently weak environment and an expectation of continued volatility, the Group is confident that the projects in hand will support its growth and profitability objectives. In the Upstream segment TOTAL will continue to invest only in projects with low break-even points. In the Downstream and Chemicals segments, TOTAL pursues growth within the framework of improved profitability.



www.total.com

Société Anonyme Capital Social: FF12,218,553,800. Total 24, cours Michelet, Puteaux (Hauts de Seine) 924 05 180 RCS Nanterre, France

SGA SOCIETE GENERALE  
ACCEPTANCE N.V.  
FRF 500 000 000 REVERSE  
FLOATING RATE NOTES  
DUE SEPTEMBER 2003  
ISIN CODE: XS0044977238  
For the period September 01, 1998  
to December 01, 1998 the new rate  
has been fixed at 10.000% P.A.  
Next payment date: 15  
December 01, 1998  
Coupon at: 18  
Amount:  
FRF 2 343,01 for the  
denomination of FRF 100 000  
FRF 25 343,01 for the  
denomination of FRF 1 000 000  
THE PRINCIPAL PAYING AGENT  
SOCIETE GENERALE  
BANK & TRUST S.A.  
11-13, Avenue de la Liberte  
L-1499 LUXEMBOURG

SGA SOCIETE GENERALE  
ACCEPTANCE N.V.  
FRF 500 000 000 REVERSE  
FLOATING RATE NOTES  
DUE SEPTEMBER 2003  
ISIN CODE: XS0044977238  
For the period September 01, 1998  
to December 01, 1998 the new rate  
has been fixed at 9.250% P.A.  
Next payment date: 15  
December 01, 1998  
Coupon at: 18  
Amount:  
FRF 2 343,01 for the  
denomination of FRF 100 000  
FRF 25 343,01 for the  
denomination of FRF 1 000 000  
THE PRINCIPAL PAYING AGENT  
SOCIETE GENERALE  
BANK & TRUST S.A.  
11-13, Avenue de la Liberte  
L-1499 LUXEMBOURG

USD 20 000 000 000  
EURO MEDIUM TERM NOTE PROGRAMME OF  
SOCIETE GENERALE  
SGA SOCIETE GENERALE ACCEPTANCE N.V.  
AND SOCIETE GENERALE AUSTRALIA LIMITED  
SERIES 6894-4, 721  
SGA SOCIETE GENERALE ACCEPTANCE N.V.  
FRF 500 000 000 FLOATING RATE NOTES DUE JUNE 2004  
ISIN CODE: XS0049099011  
For the period September 01, 1998 to December 01, 1998  
the new rate has been fixed at 6.000% P.A.  
Next payment date: 15  
December 01, 1998  
Coupon at: 17  
Amount:  
FRF 2 179,00 for the denomination of FRF 100 000  
FRF 21 789,00 for the denomination of FRF 1 000 000  
THE PRINCIPAL PAYING AGENT  
SOCIETE GENERALE BANK & TRUST S.A.  
11-13, Avenue de la Liberte  
L-1499 LUXEMBOURG



## COMPANIES &amp; FINANCE: UK

MINING TANZANIAN DEAL OFFERS OPPORTUNITY TO DEVELOP ONE OF THE BIGGEST GOLD MINES IN AFRICA

## Ashanti in \$135m bid for Samax Gold

By Kenneth Gooding,  
Mining Correspondent

After a three year pause for breath, Ashanti Goldfields of Ghana is back on the takeover trail with a \$135m offer for Samax Gold, a Toronto-listed company.

Sam Jonah, Ashanti's chief executive, said the deal would enable the two companies' adjoining properties in the Geita district of Tanzania to be developed into one of Africa's biggest gold mines, producing about

400,000 troy ounces a year at a low cash cost of \$180 an ounce.

Talks about the joint development of a Geita mine had been proceeding for six months and it was now clear Ashanti would benefit from acquiring all of Samax's properties, all of which are in Africa, he said.

Apart from Geita, Ashanti was particularly keen on Samax's half share in the \$60m Golden Pride mine, the first large-scale gold mine in Tanzania for 25 years.

Resolute, an Australian company, owns the rest of Golden Pride, which is to start up in November and expected to produce an annual 150,000 ounces at a cash cost of \$210 an ounce.

Ashanti, advised by CIBC Wood Gundy, is offering C\$7.94 (\$5.40) a Samax share and there will be an alternative of a security that can be converted into Ashanti shares at \$7.10, being the average closing price of Ashanti shares on the New

York Stock Exchange for the 30 trading days to August 28. Mark Keatley, Ashanti's chief financial officer, said the bid represented a 32.5 per cent premium to the average Samax price over the same 30 days.

Samax was formed in 1989 and listed in Toronto at C\$4.50 in December 1996. The shares have touched C\$7 since and were C\$3.20 before they were suspended on Tuesday.

Aditya Mining, a private vehicle for Switzerland-

based investors, with 43 per cent, will accept unless a higher offer materialises. Michael Martineau, chief executive and one of Samax's founders, owns 3.8 per cent of Samax - worth \$5.13m under the bid terms. Samax is advised by RBC Dominion Securities.

Mr Keatley said Ashanti had expected to spend \$90m on Geita but output could be doubled for only an extra \$30m.

The deal would add 15 per cent to Ashanti's gold pro-

duction from early in 2000.

Ashanti's price remained virtually unchanged at \$6.75. David Bird, analyst at ABN Amro said: "The positive side is that Ashanti picks up some good assets - but at a reasonably full price. The negative is that it leaves Ashanti's balance sheet a bit stretched."

Charles Kernot, at Paribas, said Ashanti was paying \$37 an ounce for Samax's "gold in the ground," whereas the market was valuing Ashanti's gold at \$31.50.

## IT success puts CMG on line for good year

By Christopher Price

CMG, the Anglo-Dutch computer services group, yesterday reported a 59 per cent rise in half-year pre-tax profits and said the buoyant state of the European information technology market would produce "a strong set of results for the full year."

The increase in profits, from \$15.1m to \$24.1m (\$39.8m), came against a 38 per cent rise in turnover to \$194.1m in the six months to June 30.

The group attributed its improved margins - up from 10.4 to 12.2 per cent - to cost cutting and increased prices.

Chris Banks, finance director, said the group had been able to pass on higher staff costs, which were increasing at about 10 per cent, to cus-

tomers. Since the start of the year, CMG had taken on 1,000 staff, taking the total to 6,000.

In the Benelux countries, CMG's biggest market, profits rose 61 per cent to \$21.2m. In the UK, they doubled to \$4m, while in Germany they increased 83 per cent to \$300,000.

Mr Banks said the group had made a strong start in setting up its French operations. Losses of \$200,000 had been recorded on sales of \$2.3m, following an acquisition earlier this year. A further two French IT companies had been purchased since June 30.

The strongest growth was in the trade and industry division where revenues rose 76 per cent. Finance was another strong performer,

increasing revenues by 54 per cent.

Mr Banks said organic growth remained the priority, but the group would use its \$30m of cash to fund further acquisitions. These were likely to be further bolt-on purchases in its chosen European markets.

Earnings per share rose 65 per cent to 12.2p. The interim dividend rises 54 per cent to 2p.

The shares, recovering from recent sharp falls, rose 187p, or 11 per cent, to £18.62p.

Analysts said that CMG had emerged, along with Misy, Sema and Logica, as a star of the IT sector, with a rating to reflect its status. Pre-tax profit forecasts for the full-year of \$26m (\$38.6m) put the shares on a forward multiple of 66.



Cor Stutterheim, chairman. Likely to use £30m cash to make further bolt-on acquisitions. Jason Orton

## Smurfit issues warning on board prices

By Jonathan Ford

Jefferson Smurfit, the Irish multinational packaging group, cautioned yesterday about the impact of falling cardboard prices on earnings as it announced a 56 per cent increase in interim pre-tax profits to \$355m (\$132m).

Dermot Smurfit, deputy chairman, warned prices were falling because of lower Asian demand for US paper products following the region's financial turmoil. "The outlook has become more bearish since the end of the second quarter," he said. "Prices in the US have already come off by 8 per cent and things are, if anything, getting worse."

The US accounts for just 27 per cent of Smurfit's profits, but it is concerned that Asia's crisis, allied to the unease in Russia, could affect demand in Europe, where it makes 56 per cent of its profits.

Group turnover rose by 11 per cent to £1.4bn. Profits at

the European operations rose 17 per cent to £591m on sales of £1.1bn (£978m). In the US, the group benefited from a turnaround at 46 per cent-owned Jefferson Smurfit Corporation, the corrugated-box maker, which made profits of \$42m (\$25m) against losses of \$11m.

Although prices and volumes had since come under pressure, Mr Smurfit was encouraged by the willingness of competitors to mothball spare capacity.

In May, JSC agreed to merge with Stone Container, a US rival, to create the largest US paper packaging maker.

Profits from Latin America grew by 21 per cent to £27m on sales of £231m (£191m), helped by a strong performance in Mexico.

From earnings of 6.2p (4p), the group is paying an interim dividend of 1.815p (1.65p). Smurfit's shares, which have more than halved since May, rose 2p 114p.

## Psion reshapes product range

By Christopher Price

Psion yesterday unveiled a shake-up in its hand-held computer range after announcing flat half-year profits and flagging sales.

The company is dropping the Sierra personal organiser, its cheapest product, phasing out the Series 3 and 3A models, and introducing a cheaper and more powerful version, the Series 3MX, in their place. The flagship Series 5 range is to be extended, with a new "slim-line" version to be launched next year.

Psion is hoping the strategy will help differentiate its products from those of its growing number of rivals in the hand-held computer market, particularly those using Microsoft's rival Windows CE operating system.

The initiative accompanied a 1 per cent rise in half-year pre-tax profits to \$4.11m (\$6.78m) on sales 15 per cent higher at \$74.3m.

Sales of hand-held computers declined 11 per cent to \$27m. Sales of the Series 5, launched last year, were just 20,000 a month, well below analysts' expectations.

David Potter, chairman, said the difficulties in the group's core market underlined the importance of investments in other areas, in particular the Symbian joint venture.

News of the venture - which teamed Psion with Nokia, Ericsson and Motorola to use its EPOC operating system in the next generation of hand-held devices - more than trebled Psion's share price when it was announced in July.

Talks with computer manufacturers have since led to strong interest in licensing EPOC, said Mr Potter. He was confident that discussions with Hewlett-Packard and Sharp, both users of Windows CE, would lead to computer groups choosing EPOC.

However, in the US, Hewlett-Packard denied this and said it was "firmly committed" to Windows CE. He also held out the possibility of further equity investors in Symbian, with likely contenders including Matsushita, the Japanese electronics group, and Sun Microsystems, the US computer group.

Psion's networking division, which provides modem cards for personal computers, reported sales up 79 per cent to \$24.7m. Sales of the industrial computer business increased 28 per cent to \$11m.

Mr Potter said a new chief executive was being sought to work with him and replace Colly Myers, who has moved from managing director to head Symbian.

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## Head of newspaper dynasty dies

By John Gapper

Jonathan Harmsworth, managing director of London's Evening Standard newspaper, is likely to succeed his father Viscount Rothermere as controlling shareholder and chairman of Daily Mail & General Trust, after the latter's sudden death.

The company, controlled by the Harmsworth family through a majority stake in its ordinary voting shares, said no formal decision had yet been taken following the death of Lord Rothermere on Monday night.

Lord Rothermere, who built up the Daily Mail and its other titles in partnership with Sir David English, editor-in-chief, after succeeding his father in 1971, was widely seen as the most successful post-war press baron.

The company, which has a market value of £2.4bn (\$3.96bn) as a result of a strong rise in its share price in the past two years, has recently lost two of its five executive directors following Sir David's death three months ago.

The Harmsworth family controls the group through its 58 per cent holding in its ordinary voting shares, which comprise 5 per cent of its issued share capital. The rest of its equity is held in A ordinary non-voting shares.

Anthony de Larrinaga, an analyst at Panmure Gordon, said the likely succession of

Jonathan Harmsworth highlighted a disparity between the level of financial risk the family takes, compared with its voting control.

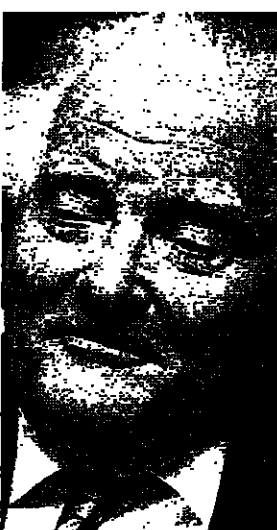
"I am sure he will run the business in a sensible fashion just as his father did, but ordinary shareholders must trust in the competence of a single individual who happens to have inherited control," he said.

Lord Rothermere, who died from a heart attack at the age of 73, held 16.3m non-voting A shares, worth \$43m at yesterday's close of \$24 a share, and Mr Harmsworth has a 5.6 per cent stake worth £12.7m. Rothschild Continuation, a family trust, holds 58.3 per cent of voting shares.

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Lord Rothermere

RESULTS		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Current dividend (p)		Date of payment		Dividends Corresponding dividend		Total for year		Total last year	
Amscy	6 mths to June 30	218.2	(192.1)	7.53	(6.06)	18.1	(12.1)	4.5	Oct 23	4	-	-	-	-	-	11	
Ascot	6 mths to July 4	97.9	(129.7)	14.1	(13.3)	14.8	(13)	3.5	-	3	-	-	-	-	-	9	
Avoncare Waterford	6 mths to July 4	1.196	(1.164)	11.4	(27.4)	0.18	(6.18)	2.25	Oct 7	2.05	-	-	-	-	-	4.9	
BDO Techs	6 mths to June 30	1.17	(0.592)	1.77	(1.47)	9.81	(13.7)	-	-	-	-	-	-	-	-	-	
Beaumont	6 mths to June 30	16.5	(15.3)	1.44	(0.3024)	1.471	(0.38)	0.25	-	-	-	-	-	-	-	0.75	
Blackline Intl	6 mths to June 30	4.15	(3.15)	0.3	(0.007)	0.72	(0.02)	-	-	-	-	-	-	-	-	-	
Black (Peter)	Yr to May 30	184.8	(164.5)	17.54	(17.1)	7	(6.2)	5.25	Nov 2	4.68	7	6.2	4.68	7	6.2	6.2	
Britt Allcott	Yr to June 30	12	(11.3)	3.04	(2.35)	8.48	(6.66)	1.4	Nov 26	1.2	2.1	1.6	1.2	2.1	1.6	3.75	
Cable	6 mths to June 30	110.8	(107.8)	10.7	(7.83)	16.25	(12.49)	3	Oct 30	2.46	4.45	3.75	2.46	4.45	3.75	3.75	
CBE	6 mths to June 30	194.2	(140.7)	24.1	(51.1)	12.2	(7.4)	2	Nov 20	1.3	-	-	1.3	-	-	3.9	
Darby	6 mths to June 30	12.4	(10.4)	1.3	(1.2)	3.25	(3.18)	1.3	Oct 22	1.2	-	-	1.2	-	-	2.6	
Five Indemnity	6 mths to June 30	20.9	(19.4)	0.905	(0.812)	3.9	(3.62)	1.2	Oct 12	1.1	-	-	1.1	-	-	3.7	
Flying Flowers	6 mths to July 3	26.8	(22.7)	2.8	(3.7)	8.95	(11.33)	2.45	-	2.45	-	-	2.45	-	-	7.36	
Graham	6 mths to June 30	270.3	(262.1)	10.56	(8.3)	5.1	(3.9)	2.1	Oct 13	2	-	-	2	-	-	8	
Greenfield IT	6 mths to June 30	13.7	(10.9)	2.96	(1.91)	4.7	(2.7)	0.5	Oct 9	-	-	-	-	-	-	-	
Hampton	6 mths to July 4	23.6	(22.8)	0.1294	(0.6034)	0.56	(2.56)	0.6	Oct 23	0.8	-	-	0.8	-	-	2.9	
Hickson Intl	6 mths to June 30	116.3	(135.9)	5.0	(4.39)	2.73	(2)	0.8	Apr 6	-	-	-	-	-	-	-	
Highway House	6 mths to June 30	12	(10.3)	0.8399	(0.718)	0.6	(0.8)	1	Nov 27	-	-	-	-	-	-	6	
Ilion	6 mths to June 30	125.6	(88.4)	1.16	(4.03)	3.5	(11)	1	Nov 6	1	-	-	1	-	-	3	
Johnson Press	6 mths to June 30	100	(110.6)	24.99	(19.44)	8.42	(6.46)	1.15	Nov 8	1.55	-	-	1.55	-	-	4	
Linux Printing	Yr to June 30	23	(21.2)	3.06	(2.61)	13.8	(11.1)	3.5	Nov 27	2.7	5.1	4	2.7	5.1	4	4.5	
Macfarlane	6 mths to June 30	98.2	(94.5)	7.04	(10.4)	3.88	(5.66)	1.98	Oct 8	1.95	-	-	1.95	-	-	-	
Mitazon	27 wks to July 4	119.1	(101.1)	4.714	(7.75)	3.6	(1.8)	-	-	-	-	-	-	-	-	-	
Mowson	Yr to May 30	122.4	(107.9)	27.74	(25.4)	10.5	(8.82)	3	Oct 23	-	-	-	-	-	-	-	
Park Estates	6 mths to June 30	0.541	(0.434)	0.1914	(0.173)	4.94	(4.91)	3.25	Oct 1	3	-	-	3	-	-	10	
Parkwood	6 mths to June 30	15	(11.8)	0.325	(0.528)	1.05	(0.7)	0.6	Oct 1	0.8	-	-	0.8	-	-	1.8	
Parsons	6 mths to June 30	216.3	(174.5)	10.29	(8.1)	9.91	(8.4)	3	Nov 30	2.6	-	-	2.6	-	-	8.7	
Photo-Art Intl	Yr to Apr 30	188.7	(159.2)	15.2	(10.3)	13.18	(8.35)	4.5	Jan 4	3.5	6.5	5	3.5	6.5	5	5	
Proton North End	Yr to June 30	4.0	(3.85)	1.44	(1.13)	71.08	(5.54)	-	-	-	-	-	-	-	-	-	
Paton	6 mths to June 30	74.3	(64.4)	4.11	(4.05)	3.7	(3.55)	0.8	Oct 5	0.7	-	-	0.7	-	-	2.5	
Q & Q	6 mths to June 30	1.06	(0.796)	0.593	(0.244)	3.81	(1.7)	-	-	-	-	-	-	-	-	-	
Regal Hotel	6 mths to June 30	56.5	(43)	7.44	(4.1)	1.46	(1.04)	0.48	Oct 1	0.4	-	-	0.4	-	-	1.25	
Rossmore	Yr to June 30	31.4	(26.2)	0.8674	(2.44)	0.011	(0.64)	0.1	Dec 8	0.08	0.1	0.05	0.08	0.1	0.05	0.05	
Sanco	6 mths to June 30	285.6	(244.4)	12.7	(10.6)	13.9	(11.5)	2.3	Oct 10	2	-	-	2	-	-	6.4	
Skyperman	6 mths to June 30	4.57	(3.53)	10.4	(8.71)	2.91	(2.6)	-	-	-	-	-	-	-	-	-	
Smurfit (A) 5	6 mths to June 30	1,403	(1,262)	94.79	(61.2)	8.2	(4.1)	1.815	Oct 30	1.65	-	-	1.65	-	-	4.82	
Ultima Networks	6 mths to June 30	8.29	(20.9)	0.8331	(0.424)	0.99	(0.1)	0.1	-	-	-	-	-	-	-	-	
Waterford Wood	6 mths to June 30	257.7	(174.8)	9	(10.2)	1.16	(1.2)	0.4	Nov 30	0.35	-	-	0.35	-	-	1.6	
Whitman	6 mths to June 30	47.4	(45.5)	7.31	(6.27)	19.77	(16.42)	6	Oct 30	5.2	-	-	5.2	-	-	15.5	
Wilson Bowden	6 mths to June 30	245.1	(230.8)	35.8	(29.1)	27.2	(21.2)	4	Nov 10	3.3	-	-	3.3	-	-	12.5	

Investment Trusts		NAV (p)	Attributable Earnings (p)	EPS (p)	Current dividend (p)	Date of payment	Corresponding dividend	Total for year	Total last year
CU Environmental	6 mths to June 30	154.5 (143.3)	0.09 (0.085)	0.51 (0.49)	-	-	-	-	0.5
Planting Emerging	Yr to June 30	129.6 (192.9)	0.398 (0.856)	0.41 (0.88)	nil	-	0.4 nil	0.4	0.4
Principles Private	Yr to June 30	700 (481)	0.463 (0.375)	0.8 (8.3)	nil	Oct 9	3.5	6.5	6
Penine Ash VCT	6 mths to July 31	140.07 (112.71)	0.036 (0.052)	0.7 (1.1)	-	-	-	-	4.16

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. <sup>1</sup>After exceptional charge. <sup>2</sup>After exceptional credit. <sup>3</sup>on increased capital.



BUSINESS AND THE EURO

PORTFOLIO INVESTMENT

# Why eggs will move to many baskets

The launch of monetary union will allow fund managers to invest in equities across founder states, writes Jane Martinson

Institutional investors across Europe are approaching the launch of the single currency on January 1 as they might a cold shower. While some inch towards the deluge, others are preparing to jump straight in - or have already done so.

But whichever approach is adopted, the impact on asset allocation is expected to be enormous, and it could change the flow of funds to and from some domestic equity markets.

Morgan Stanley Dean Witter, the US investment bank, has estimated that some \$1,300bn-worth of new money will flow into continental European equities as a result of portfolio rebalancing between now and 2010.

Such restructuring related to economic and monetary union started early this year and will continue well after its launch. According to one investment banker, the billions of dollars worth of shares traded so far is "just the tip of the iceberg".

Two main forces are behind the rebalancing. First, the creation of the

afterwards or over a longer period? And how can they keep down the costs?

They will also bear in mind this month's sharp equity market fall and the possibility of a severe bear market, although many fund managers feel this will have a limited impact on very long-term decisions.

The diversification possibilities are directly affected by a fund manager's choice of benchmarks, which vary in their country weightings. The options include the families of indices managed by MSCI, FTSE International (part owned by the FT) and Dow Jones Stoxx.

These in turn break down into indices which track eurozone countries only and Europe as a whole; and they come with a range of constituents, from just 50 for some DJ Stoxx indices - aimed at retail investors and derivatives trading - to many hundreds for indices designed primarily as benchmarks.

There seems little evidence of a Europe-wide consensus on which benchmark will become the standard or the extent to which non-Euro countries, such as the UK and Switzerland, will be included in investment portfolios.

Chris Jackson, vice-president of the portfolio strategies group at Merrill Lynch, the US investment bank, says the jury is out on which, if any, will gain universal support.

He adds that several European clients have indicated they want to include non-eurozone countries in their portfolios "because they don't want to change again in three years' time" when countries such as the UK may join monetary union.

Jan Mantel, chief investment officer of European equities at Dresdner RCM Global Investors, the fund management group, says he has found roughly equal support for Euro-only benchmarks and those that include the UK.

But whichever benchmark is chosen, some analysis suggests that equity markets in countries where pension funds have a large proportion of their assets in domestic stocks could be hit.

A report by Morgan Stanley and Intersec, the research group, claims the

equity markets of the Netherlands and Ireland could suffer net outflows of \$47bn and \$6.5bn respectively as domestic pension funds allocate more of their funds to other Euro states. (The study excludes the impact of shifts by retail investors and insurance funds.) Countries such as Germany, Italy and France, where a small percentage of national funds are held in shares, would enjoy net gains.

According to this study, the UK could lose a net \$280bn in equity investment if it were to join the single currency. UK institutional investors hold more than 50 per cent of their portfolios in domestic equities.

But this may prove an extreme scenario, since, in practice, political and social factors will mitigate portfolio shifts. Pension fund trustees and national governments are unlikely to support an immediate, dramatic move away from domestic investing.

Huge shifts will also be



ameliorated by a trend among investors from allocating assets in Europe by country to allocation by industrial sector.

Sandy Rattray, head of European equity derivatives research at Goldman Sachs, believes Dutch investors will remain relatively overweight in the Dutch market compared with European benchmarks for some time.

A consensus appears to be building that large companies will benefit from new fund flows. Mr Rattray echoes others when he says: "If a German fund manager is going to buy Spanish stocks

for the first time he is going to buy big names."

Once a decision has been made, the timing of a portfolio shift becomes all important, since it can affect the cost of trading and therefore the value of the portfolio. There appear to be few time limits imposed on fund managers, who can choose whether to move early or wait until the euro is established.

No one expects a mad dash on or around January 1, since most institutional investors will want to see whether computer systems can cope with trading in

euro before taking action. At the same time, the introduction of the currency is expected to exacerbate the thin trading volumes normal towards the end of the year. Investors fear this poor liquidity will mean volatile prices.

Tom Levy, managing director of portfolio trading at Morgan Stanley, says: "I don't think we are going to wake up on New Year's day and see that the world has changed." The brave new world will take a lot longer than that.

Euro Prices, Page 21

## Time to set a price on your products



be determined on January 1 next year.

But I allow country managers great flexibility to change prices. Do I take all freedom from them and impose a centralised pricing system? Basically, yes. In any case, once Euro arrives, you might want to stop thinking in terms of individual countries and divide the eurozone into more meaningful subunits, based on regions, language or whatever suits your industry.

I've heard talk of "pricing corridors", which leave some initiative to local managers. What is this? You set a central euro price and a margin either side, and allow your managers to charge local rates within the corridor. Whether this works depends on your business and on the degree to which your customers, or some middlemen, are in a position to exploit those differences. The greater the degree of cross-border activity, the smaller your margin for manoeuvre.

Won't this ruin my pricing strategy in some countries? For example, I currently charge DM1.99 for a certain widget. That will translate into an odd number in euros. I could lose market share. Not necessarily, because the same problem applies to all your competitors. This is less of a problem in Germany, where the D-Mark translates at a fairly even rate into euros - approximately one euro for two D-Marks. It is more of a problem in France and Italy. If you are keen to retain price points, you will have to judge whether you want to round up or down. You may also rethink whether price points are necessary.

Could this be an opportunity to raise prices in some markets? It could in theory, but don't bet on it. Ask yourself: if it is possible to raise prices after Euro, why was it not possible to do so before?

I am still not convinced I need a strategy for handling this. What are other companies doing? Some have made real headway, many others have not even started. Generally, the big European multinationals, also some of the Americans, have spent much time, effort and money on preparations for the euro. The banks are best prepared. Many industrial customers, such as Daimler-Benz and Philips, will switch over their entire operations - pricing, invoicing, payments, and so on - to euros from January 1 next year. Others, such as IBM, have chosen a later date, but they will still be able to handle euro payments from next year. If your company is unable to handle a payment or an invoice in euros, the chances are you will be in big trouble, especially if your competitors are better prepared.

Wolfgang Münchau

## DELIVERING IN EUROPE

<p>LandesKreditbank Baden - Württemberg</p> <p><b>L-BANK</b></p> <p>EURO 500 million 4.625% bonds due 29 July 2005</p> <p>Joint Bookrunner</p> <p>July 1998</p>	<p>Allgemeine Hypothekbank AG</p> <p><b>ALLGEMEINE HYPOTHEKENBANK AG</b></p> <p>Ein Unternehmen der BHW-Gruppe</p> <p>EURO 500 million FRN due 21 July 2000</p> <p>Sole Bookrunner</p> <p>June 1998</p>	<p>Credit Commercial de France</p> <p><b>CCP</b></p> <p>CREDIT COMMERCIAL DE FRANCE</p> <p>EURO 200 million FRN due 8 July 2002</p> <p>Joint Bookrunner</p> <p>June 1998</p>
<p>Unibank A/S</p> <p><b>Unibank</b></p> <p>EURO 350 million FRN due 24 June 2003</p> <p>Joint Bookrunner</p> <p>June 1998</p>	<p>Bancaja International Finance</p> <p><b>BANCAJA</b></p> <p>Caja de Ahorros de Valencia, Castellón y Alicante</p> <p>EURO 130 million FRN due 1 June 2005</p> <p>Sole Bookrunner</p> <p>May 1998</p>	<p>Landesbank Schleswig-Holstein Girozentrale</p> <p><b>Landesbank Schleswig-Holstein Girozentrale</b></p> <p>EURO 250 million 4.625% bonds due 28 May 2002</p> <p>Sole Bookrunner</p> <p>May 1998</p>
<p>Finance for Danish Industry A/S</p> <p><b>FIH</b></p> <p>EURO 150 million FRN due 27 May 2003</p> <p>Joint Bookrunner</p> <p>April 1998</p>	<p>Kingdom of Spain</p> <p><b>EURO 1 billion 6% bonds due 31 January 2029</b></p> <p>Joint Bookrunner</p> <p>February 1998</p>	<p>Abbey National Treasury Services plc</p> <p><b>ABBAY NATIONAL TREASURY SERVICES</b></p> <p>ECU 300 million 4.5% bonds due 3 August 2001</p> <p>Sole Bookrunner</p> <p>January 1998</p>

Much has been written about the challenges of dealing with the new Europe. At Barclays Capital we have always known what it would take to succeed. If we applied our US\$416 billion balance sheet, our AA credit rating and our ability to devise and execute focused integrated solutions for our clients, then the deals would come through. And they have. In the first six months of 1998, Barclays Capital has lead-managed 93 transactions totalling some US\$24.5 billion, including ten EURO deals worth EURO 3.6 billion. Indeed Barclays Capital was the first bookrunner to launch a 30 year Euro on behalf of a sovereign and the first bookrunner of a EURO FRN, to use EUROIBOR.

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### NEWS BRIEFS

#### HOUSEHOLD GOODS

#### Asian crisis chips Waterford Wedgwood

Waterford Wedgwood, the Irish pottery and glassware company, has reported a 10 per cent fall in profits for the first half of 1998. The company, which is a constituent of the FTSE 100, said the decline was due to a combination of factors, including a weaker than expected demand for its products in the Asian market.

#### PHARMACEUTICALS

#### Roche in US talks

Roche, the Swiss pharmaceutical giant, is in talks with US regulators over the approval of a new drug. The company, which is a constituent of the FTSE 100, said the talks were part of a routine regulatory process. The new drug is expected to be launched in the US in 2000.

#### DEFENCE

#### State sells US arm for £13m

The UK's largest defence contractor, BAE Systems, has sold a US arm for £13 million. The company, which is a constituent of the FTSE 100, said the sale was part of a restructuring exercise. The arm was sold to a US company, which is a subsidiary of BAE Systems.

#### PHARMACEUTICALS & PRINTING

#### Printers expand in US

Printers, the major UK printing company, has expanded its operations in the US. The company, which is a constituent of the FTSE 100, said the expansion was part of a long-term strategy. The company has opened new offices in the US and is expected to launch new products in the near future.

#### DEFENCE

#### UK's defence offer unconvincing

The UK's defence offer to the US is unconvincing, say US officials. The officials, who are part of a US defence task force, said the offer was not sufficient to meet the US's needs. They called for a more comprehensive and long-term defence agreement between the UK and the US.



## MANAGEMENT &amp; TECHNOLOGY

INTERVIEW JACK GREENBERG, MCDONALD'S

## A mission to buff up the golden arches

The world's biggest fast-food chain has lost its way. Now, under a new chief executive, it is attempting to recover the vitality it displayed in the 1960s, writes **Richard Tomkins**

The Big Mac is 30 years old this year. Next month, McDonald's will mark the occasion in the US by re-creating some of its old advertisements and dressing up restaurant employees in 1960s uniforms.

If only McDonald's could re-create its 1960s vitality, too. As it is, the world's biggest fast food chain has lost its way. In the US, still its most important market, profits have barely changed in the last three years.

That may not mean the end of the venerable Big Mac, which remains McDonald's best-selling sandwich. But it does mean that big changes are looming as Mr Greenberg carries out his vow to "reinvent" fast food.

Already, no fewer than eight new products are being test marketed in the US. They include the Big Xtra, a burger with lettuce and tomato; a range of breakfast bagel sandwiches, one example containing steak, egg and cheese; and fried strips of chicken breast, called Chicken Selects.

"If they don't make the national menu, that's not a failure," Mr Greenberg says. "The failure would be not to test them, or to test them for five years before you decide, which is what we have traditionally been guilty of."

"We have been taking much too long to develop an idea and get it to the market, then too long to decide whether we want to do it or not. What we want to do is speed up that process, and we are doing that."

For many years, McDonald's scarcely seemed to need new products. The company had something akin to a fry-it-and-they-will-come mentality, increasing sales and profits by the simple expedient of opening ever-larger numbers of restaurants.

But by 1996 things had started to go wrong. In the US, which still accounts for 40-45 per cent of operating profits, sales growth slowed to the point where it was no longer keeping up with the pace of restaurant openings: so sales per store fell, hitting profits.

Alarmingly, McDonald's also found itself losing market share to Burger King and Wendy's, its two biggest rivals, and some ham-fisted marketing fumbles did nothing to reverse the slide.

Something had to happen, and at last it did. In May, McDonald's announced that Mr Greenberg, who had been

given the task of turning around the US business only 18 months earlier, would take over as chief executive of the entire company - only the fourth in its 43-year history.

In some ways, Mr Greenberg, 55, seems an unlikely choice for the job. An affable ex-accountant, he joined McDonald's as chief financial officer 16 years ago, and

**'If you are going to grow the business in the US, you need to test the elasticity of the McDonald's brand'**

until becoming head of the US business in 1996, had little operational experience.

Still, in his short time with the US operation, he had already made big changes. He decentralised the business, splitting it into five regional divisions with a degree of autonomy; brought in new managers from outside; announced a plan to change the kitchen equipment in all the US restaurants; and started

testing new menu items.

Mr Greenberg explains that the new, computerised kitchen equipment is the key to product innovation because it allows employees to make food to order instead of cooking items in batches and leaving them sitting under a hot lamp until bought.

Under the old system, employees could not make many different items because of the risk that some would remain unsold for more than the maximum permitted 10 minutes. Under the "made-for-you" system, any number of items can be offered because they are prepared individually for each customer.

"This new production system makes it much easier for you to get orders right than wrong. More importantly, it gives you the flexibility to introduce more variety to the menu," Mr Greenberg says.

To take an example: the Big Xtra sandwich contains a beef patty, lettuce and tomato. But by omitting the lettuce and tomato and adding slices of cheese and smoked bacon, the sandwich can just as easily be turned into a Big Bacon Cheeseburger, with no effort or wastage involved in offering the extra choice.

And this, Mr Greenberg says, is just the start. "If you are going to grow the business in the US, you need to test the elasticity of the McDonald's brand, and our belief is that the way we do that is through food and food innovation."

Mr Greenberg is reluctant to be more specific, perhaps because neither he, nor anyone else, can yet be sure what "reinventing" fast food



means. But in a notable decision a few months ago, McDonald's took a minority stake in Chipotle Mexican Grill, a chain of upmarket Mexican fast food restaurants based in Denver, Colorado.

Could Mexican food be the way ahead? Mr Greenberg says he does not think McDonald's will ever serve Mexican burritos: but that does not mean it might not serve a Big Xtra "with salsa

and oaxaca cheese and whatever else sounds Mexican."

"There's a lot of possibilities," he says. "You don't have to make a taco to sell food that has a Mexican flavour to it."

More intriguingly, Mr Greenberg raises the possibility that if Chipotle Mexican Grill turns out to have sufficient potential, or any other suitable format emerges, McDonald's will consider building it up into

an entirely new restaurant chain operating independently of the original burger business.

"Ninety-nine per cent of our effort is on building the business under the Golden Arches," he says. "But given our competences and our resources, I think we owe it to our shareholders to experiment with other concepts, maybe at different price points, and see if we can find another global brand."

## INFORMATION TECHNOLOGY DATABASE DESIGN

## Elusive object comes into view

Object databases are poised to enter the mainstream of computing, writes **Geoff Nairn**

When the Asian currency crisis produced record trading volumes on the Chicago Stock Exchange last October, traders were living on their nerves. But at least their trading system coped easily.

That was due partly to the installation of a system that includes an "object database". Several small vendors have fought for years to establish these databases in a market dominated by the heavyweight "relational" database suppliers, such as Oracle, International Business Machines and Micro-

soft. Object-oriented technology allows large, complex programs to be assembled from manageable chunks of code called "objects", whose in-built behaviour efficiently and accurately models that of the real-world objects they represent.

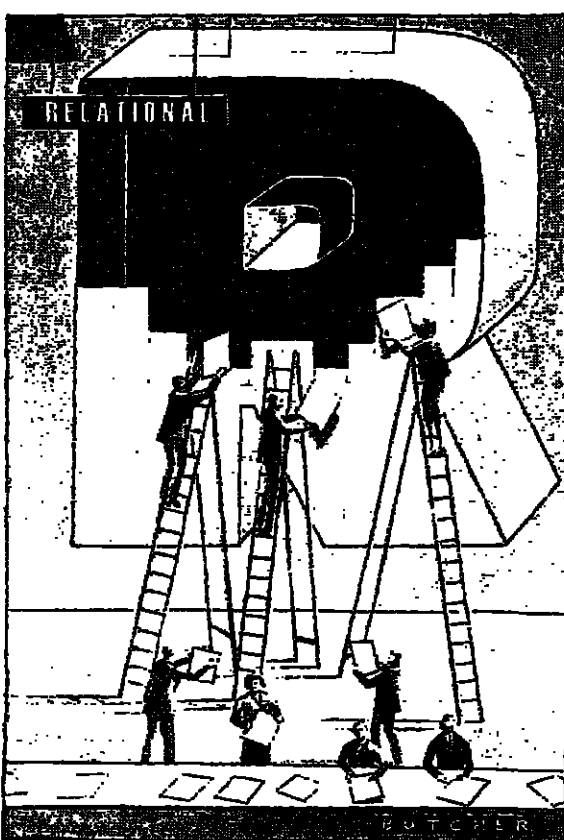
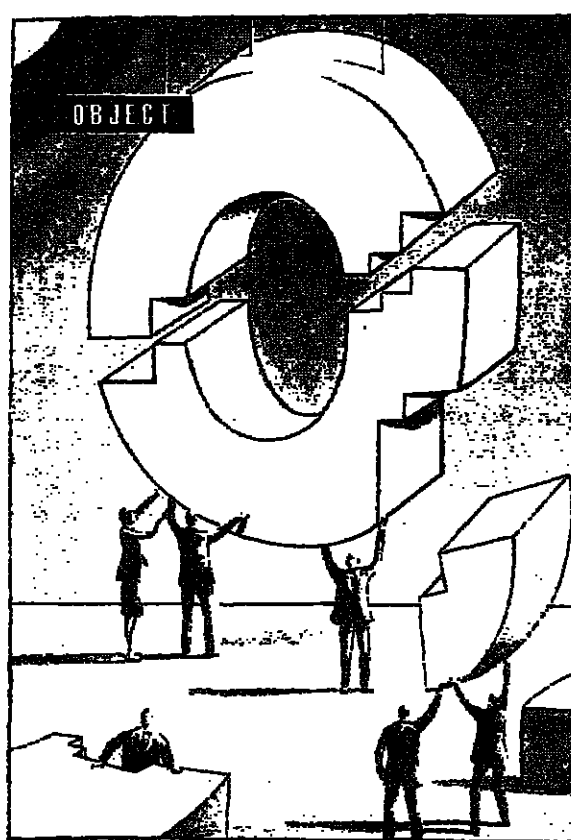
Formerly of mainly academic interest, objects are poised to enter the mainstream of corporate computing. A growing number of organisations are finding the technology better suited to the challenges of building complex modern information systems than established computing technologies. "Object technology is a natural fit for the financial community," says John Kerin, vice-president of application development at the exchange.

When a Chicago trader enters an order on one of the 110 workstations connected to the exchange's system, an "order" object is created and automatically routed to an electronic order book, where it is matched against other orders. To store and process these real-time order objects, the exchange uses an object database from US-based Versant.

Object databases are relatively rare and many organisations developing object-based software prefer to use the more familiar relational database technology to store their object data. But that requires objects to be "mapped" on to the simpler data structures - tables and rows - of a relational database.

Mr Kerin believes this is a poor solution. He says a "pure" object database such as the Versant product gives better performance for real-time trading than adapting a relational database.

That is because the object database temporarily stores or "caches" the objects rep-



resenting the trading orders in the memory of each client workstation for faster access. Relational databases lack this "client-side cache" capability.

The relational database has long been king of the database market, which in 1997 was worth \$6.8bn worldwide, says Dataquest, the research firm. The object database industry accounted for only \$150m of the total. But growth is faltering and analysts partly blame the relational vendors' slowness to embrace new trends, such as object-based computing and the Internet.

A relational database has a rigid two-dimensional view of the world and the Internet's rich mix of data - documents, images, audio and video clips - cannot be stored directly in its tables and rows. Vendors have thus had to develop "extensions"

to enable their relational databases to handle multimedia better.

In spite of object databases' advantages, Patrick O'Brian, director of product development with Object Design, a rival to Versant, admits it was "wishful thinking" to believe that object databases would one day replace relational technology. Analysts agree. "For certain types of applications, such as network management, financial applications or decision support, object databases are the clear winner," says David Wells, senior analyst at Ovum, the UK consultancy. "But I do not think they will go beyond these applications."

Nevertheless, the object database vendors believe they can and hope the Internet will create opportunities. Mr O'Brian cites as an example Southwest Airlines,

which uses Object Design's ObjectStore product to offer an Internet booking service. ObjectStore acts as a "front end" to the US airline's reservation system based on a relational database. "A lot of the time we get involved in a project when the relational model has failed," he says.

The object database industry got a big boost in December 1997 when Computer Associates launched its Jasmine object database, becoming the first big software company to back the technology. CA also sells a relational database, Ingres, but says the two products apply to different markets. "We are not saying 'move everything over to Jasmine' as a lot of applications still just deal with text and numbers," says Ray McGinley, a UK-based consultant for CA.

The Aberdeen Group, a US consultancy, says Jasmine is

better than relational databases at handling Internet applications with complex data content and interaction. CA says more than 50 customers are already building applications with Jasmine and its arrival has given the object database industry new respectability.

It has also forced the relational database vendors to take objects seriously by producing a new generation of hybrid "object-relational" databases - also known as "universal" databases - that aims to deliver the best of both worlds. For example, IBM's DB2 Universal Database has been designed to support the popular Java object programming language, while Oracle's latest Oracle8 database has an "object option".

Critics claim these products are compromised technologically and cannot live up to the "universal" claim. They note that CA wasted 18 months trying to add object extensions to its Ingres relational database before building a pure object product - Jasmine.

"We just kept hitting a brick wall each time we tried to extend Ingres to deal with objects," says Mr McGinley.

According to IDC, the US consultancy, putting object extensions on a relational database is like adding global navigation systems to horse-drawn carriages. "You will have interesting enhancements but the wrong base vehicle. In the end, it will not be the appropriate vehicle for the information superhighway."

## Chill Can technology may be used in space

Even the relative luxury of a NASA shuttle - by space-flight standards, that is - offers few creature comforts. Every item must justify its weight and power consumption, writes **John Nutting**.

Refrigeration is used only where strictly necessary: typically for keeping laboratory experiment samples cool. The crew's cabin is maintained at a constant temperature, but that is usually a sweaty 70°F.

So the offer of a new technology that could provide cool drinks without draining energy reserves must have been attractive to NASA engineers.

The system is a spin-off from a development programme to produce a commercial self-chilling drinks can. Although criticised last year because a prototype used a so-called greenhouse gas, the Chill Can design from The Joseph Company in California contained basic features that could be used with a number of gases.

In contrast to the closed system used in domestic refrigerators, the Chill Can uses an "open", or one-way, cycle. Gas is compressed into a small container through a valve. When the gas evaporates to the atmosphere, it draws heat from the drink surrounding it.

Engineers at Joseph knew that once the pressure inside the container equalled that of the atmosphere, the process slowed, even though some of the liquid refrigerant remained. But inserting a ribbed sleeve inside the walls of the container encouraged the refrigerant to evaporate more vigorously than it would do otherwise. The result is more efficient cooling.

In space, the pressure difference between the shuttle cabin and the near-vacuum outside should provide an almost perfect proving ground for the Joseph process. The company's engineers have set up a test rig that demonstrates a technique for cooling desserts such as creams and custards.

They realised that a product of the hydrogen-oxygen electrical fuel cells that provide power for the shuttle was about 2 tons of pure water. Most of this is discarded into space,



TECHNOLOGY WORTH WATCHING

where it freezes and evaporates, before re-entry into the Earth's atmosphere.

The Joseph process, if adopted, would evacuate the water through one of the company's adapted refrigeration systems. Joseph's engineers expect this would force the water to evaporate in a more controlled fashion, effectively boiling inside the shuttle's new cooling system before the vapour is released, cooling whatever is around it.

The Joseph Company: [www.chillcan.com](http://www.chillcan.com)

## Escaping gene alert

The debate about the ecological risks of genetically modified crops is likely to be fuelled by research that suggests that it may be easier for certain genes to "escape" from genetically engineered crops to related weeds than previously thought.

Researchers at the University of Chicago have discovered an unexplained increase in promiscuity of certain transgenic plants, according to a letter in today's *Nature*, the international science journal.

Genes are usually considered unlikely to cross to other closely related weed species if those weeds normally self-fertilise. Yet the US scientists found that a transgenic form of a normally self-fertilising wild mustard plant was much more likely to breed with other plants than expected.

The results show that genetic engineering can "substantially" increase the probability that modified or added genes can "escape" into related species, the researchers say.

Because the underlying genetic mechanism is unknown, it is unclear

whether the results extend beyond the gene studied, which confers resistance to a particular herbicide. But even if the findings are restricted to this gene, the scientists argue that their results are "of broad relevance because this transgene has been introduced into dozens of agricultural crops".

University of Chicago: US, tel 773/7023855; e-mail [jbargels@midway.uchicago.edu](mailto:jbargels@midway.uchicago.edu)

## TB bacteria protein isolated

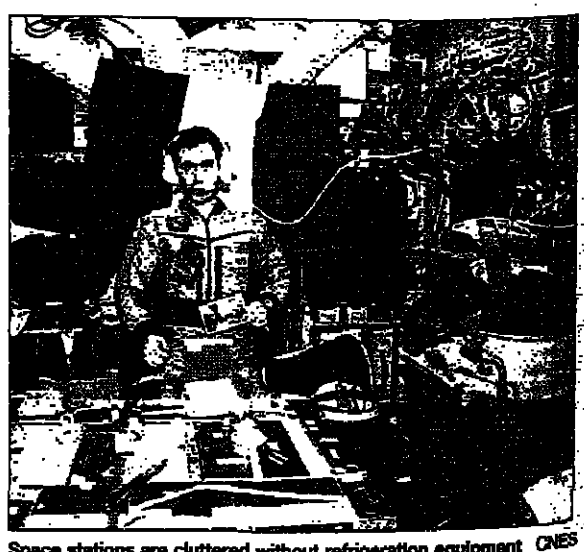
A bacterial growth factor that plays an important role in the development of tuberculosis has been discovered by a team of scientists in Wales and Russia. The research could provide new approaches for dealing with tuberculosis, leprosy and infections caused by antibiotic-resistant bacteria.

As many as one in three of the world's population is infected with tuberculosis, but the bacteria will normally lie dormant unless it is activated by a decline in an individual's immune system. These latent infections are difficult to diagnose and treat, since most antibiotics only act against growing bacteria.

The latest research, which was published in the *Proceedings of the National Academy of Sciences* in the US, has isolated a protein, known as the resuscitation promotion factor, which activates dormant cells. If scientists were able to block the action of the factor, by targeting its receptor, it would be possible to prevent dormant bacteria from regaining their virulence.

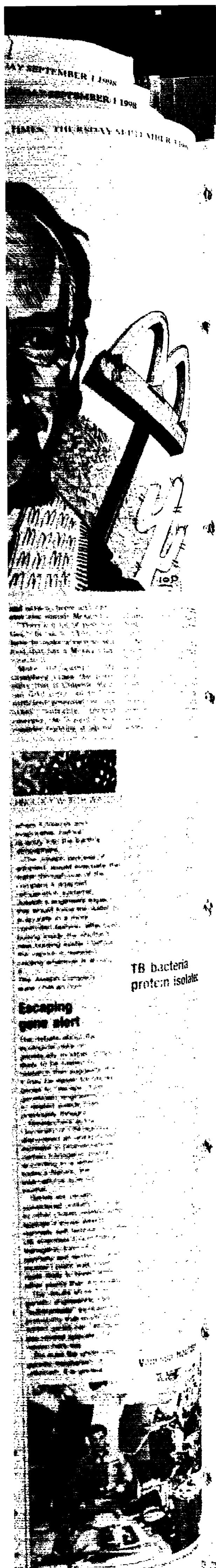
University of Wales, Aberystwyth: UK, tel (0)1970 621763; e-mail [slc@aber.ac.uk](mailto:slc@aber.ac.uk)

Vanessa Houlder



Space stations are cluttered without refrigeration equipment





## EQUITIES

## Firm Wall St helps Europe rally

By Philip Coggan,  
Markets Editor

Europe's equity markets achieved a healthy rally after Wall Street continued its rebound from Monday's 500-point decline.

There were signs that some investors were beginning to hunt for bargains but few believed they had seen an end to the recent volatility in world markets, which has seen some European bourses fall by more than 20 per cent.

Socks shrugged off softer bond markets and the recent

weakness of the dollar against the D-Mark, normally a depressant for European share prices.

The FTSE Eurotop 100 index jumped 49.2 points or 2 per cent to 2,526.43 while the broader Eurotop 300 rose 21.66 to 1,097.15.

Once again, the core euro countries, as represented by the FTSE Eurotop 100 index, outperformed, thanks to a relatively modest performance by the London stock market, a significant component of the two Eurotop indices. The Epioc 100 rose 2.5 per cent or 22.13 to 912.85.

The best performing sector of the day was extractive

industries, up 5.3 per cent, where Billiton gained Ecu 0.2 to Ecu 1.69 on a buy recommendation from a broker and hopes it would retain its place within the FTSE 100 index when the constituents are decided next week.

Diversified industrials managed a 4.3 per cent rise with the German utility RWE a strong performer, up Ecu 3.9 to Ecu 46.75.

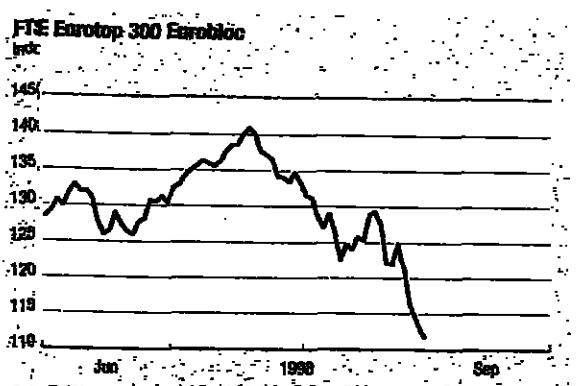
The rebound in US high tech stocks helped the information technology sector gain 3 per cent on the day. SAP, up Ecu 20.7 to Ecu 244.59, received a further lift after insider trading charges

against a board member were dropped.

Financials, battered in recent weeks by their exposure to the Russian crisis, managed a further recovery, gaining 2.1 per cent on the day. The Italian banks Credito Italiano, up Ecu 0.2 to Ecu 4.19, and San Paolo, up Ecu 0.4 to Ecu 12.79, were strong performers.

But some sectors missed out on the rally. Alcoholic beverages fell 1.3 per cent, with Diageo dropping Ecu 0.4 to Ecu 9.02. Distribution stocks were also weaker.

More euro coverage on the Business and the Euro page



Source: FTSE International

FTSE EUROTOP 300 EUROINDEX									
Index	Open	Sett price	Change	High	Low	Est. vol	Open int.	Open int.	Open int.
Oct	98.245	98.245	-0.000	98.245	98.245	141	0.000	0.000	0.000
Nov	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000
Dec	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000

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Oct	98.245	98.245	-0.000	98.245	98.245	141	0.000	0.000	0.000
Nov	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000
Dec	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000

FTSE EUROTOP 100 EUROINDEX									
Index	Open	Sett price	Change	High	Low	Est. vol	Open int.	Open int.	Open int.
Oct	98.245	98.245	-0.000	98.245	98.245	141	0.000	0.000	0.000
Nov	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000
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FTSE ACTUARIES SHARE INDICES									
Index	Open	Sett price	Change	High	Low	Est. vol	Open int.	Open int.	Open int.
Oct	98.245	98.245	-0.000	98.245	98.245	141	0.000	0.000	0.000
Nov	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000
Dec	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000

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Dec	98.440	98.440	-0.000	98.440	98.440	72	0.000	0.000	0.000

RESOURCES	797.00	+1.82	+14.09	3.67	21.61	815.77
Oil, Integrated	657.48	+5.29	+33.05	4.48	0.00	667.48
Oil, Integrated	761.26	+1.68	+12.57	3.63	15.03	773.33
Oil, Exploration & Prod	630.14	+2.21	+13.60	3.86	0.00	630.14
GENERAL INDUSTRIES	1022.45	+2.72	+27.84	2.77	19.50	1042.12
Construction	918.83	+1.51	+19.54	2.78 <td>11.06</td> <td>929.51</td>	11.06	929.51





# NEWS DIGEST

## ASSET-BACKED SECURITIES

### Second UK Student Loan Scheme attracts interest

A second UK student loan scheme, which is being set up by the government, has attracted considerable interest from investors. The scheme, which is being set up by the government, is expected to be launched in the next few months. It will provide a new source of funding for students, and is expected to be a major success for the government. The scheme is being set up by the government, and is expected to be a major success for the government. It will provide a new source of funding for students, and is expected to be a major success for the government.

## MARKETS

### Italian exchange reorganises

The Italian stock exchange has announced a major reorganisation of its structure. The new structure is expected to be completed by the end of the year. It will provide a more efficient and transparent market for investors. The reorganisation is being led by the Italian government, and is expected to be a major success for the Italian market.

## FRANC DERIVATIVES

### Trading volumes rise in August

Trading volumes in the French derivatives market have risen significantly in August. This is due to a number of factors, including a increase in the number of contracts traded. The market is expected to continue to grow in the coming months.

## INTERNATIONAL BONDS

Country	Rating	Yield	Price
USA	Aaa	6.50%	102.50
Germany	Aaa	5.50%	101.50
France	Aaa	5.50%	101.50
UK	Aaa	6.00%	102.00
Japan	Aaa	5.00%	100.50
Australia	Aaa	6.00%	101.50
Canada	Aaa	5.50%	101.50
South Africa	Aaa	6.50%	102.50
Italy	Aaa	6.00%	102.00
Spain	Aaa	6.50%	102.50
Portugal	Aaa	6.50%	102.50
Greece	Aaa	6.50%	102.50
Poland	Aaa	6.50%	102.50
Czech Republic	Aaa	6.50%	102.50
Hungary	Aaa	6.50%	102.50
Slovakia	Aaa	6.50%	102.50
Slovenia	Aaa	6.50%	102.50
Lithuania	Aaa	6.50%	102.50
Latvia	Aaa	6.50%	102.50
Estonia	Aaa	6.50%	102.50

# CURRENCIES & MONEY

## Calmer mood returns to forex market

### MARKETS REPORT

By Richard Adams

After the hectic activity of recent days, something of a calmer mood returned to the foreign exchange markets during European trading hours yesterday.

"There is not quite the same sense of panic we had in the last couple of days, it's much quieter," said Paul Meggs at Deutsche Bank in London.

The US dollar and the D-Mark regained more ground against the yen, the D-Mark making the more significant gains with a Y12 rise to end trading at Y78.78. The dollar strengthened by Y14, to Y137.8.

The dollar was helped by reports that the Federal Reserve may not be as keen to cut interest rates as was thought on Tuesday. Ernst Weiteke, a Bundesbank council member, weighed in with comments that rate

cuts in Germany or the US "would be no sensible step."

But news that Colombia was making a *de facto* devaluation took some of the shine off the dollar. The Colombian peso opened trading sharply lower after its central bank announced the introduction of a wider exchange rate band.

The move allows the peso to depreciate by as much as 25 per cent over the next 12 months. Mr Meggs said Colombia's effective devaluation was a "worrying precedent" for other South American currencies. "I suspect this will increase nervousness about Brazil and Argentina," Mr Meggs said.

In Russia, the rouble was quoted at 13.9 to the dollar. The official rate was 10.84.

As Kiichi Miyazawa, Japan's finance minister, prepares to meet Robert Rubin, the US Treasury secretary, in San Francisco this weekend, a compromise deal with opposition politicians over the fate of Japan's ailing banking sector may strengthen his hand.

The Komai bloc and the Democratic Party both signalled that they may back government plans to inject public funds, if full disclosure of the banks' financial positions were revealed and restructuring speeded up.

If a deal is made to recapitalise the banking system, it could quickly signal an end to the uncertainty surrounding Japan's recovery and spark an appreciation in the yen. Paul Cerkow, head of global currency strategy at the Bank of Tokyo-Mitsubishi in London, said: "What we will see is an important precondition for economic recovery in Japan."

"Until the banks start to

very effective," Mr Cerkow said. Sentiment in favour of the yen could change "very quickly," he said.

Malaysia's decision to end offshore trading in the ringgit and set a fixed exchange rate continued to cause confusion yesterday.

Singapore's foreign exchange market committee offered to settle offshore ringgit positions at a rate of four to the US dollar, compared to the fixed rate of M3.8 announced yesterday by Bank Negara.

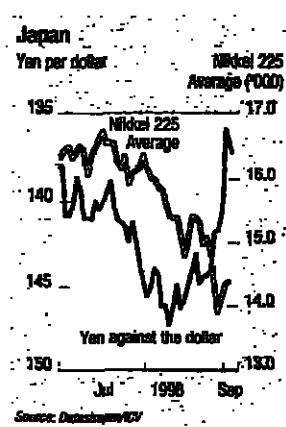
Yesterday, trading in the ringgit had slowed to a dribble as banks worried over how to settle previous

trades. "No one is touching the ringgit. In that respect the controls have worked," Reuters news agency quoted a Sydney trader as saying.

The major problem is with forward contracts made before the controls were imposed on Tuesday, with a settlement date after the central bank's September 30 deadline when ringgits held off-shore will cease to be legal tender.

A front page story in the Washington Post yesterday helped the dollar's recovery. In it, Janet Yellen, the former Federal Reserve governor, said there was no recession in the making.

"We've had some stock market correction here, and the market is not irrelevant to the performance of the economy. But its impact should not be overstated in light of the very strong fundamentals of the US economy," she said.



Source: Reuters/FT

lend again, whatever degree of monetary accommodation and interest rates, there won't be any real recovery in the economy."

The political deal would allow Mr Miyazawa to offer positive progress to the Japanese government to Mr Rubin, in exchange for US support for the yen.

"In that environment, intervention could prove

### OTHER CURRENCIES

Currency	Rate	Change
Swiss Franc	1.48	+0.01
Japanese Yen	137.8	+14
British Pound	1.54	+0.01
US Dollar	1.38	+0.02

### LIBOR & BSA LONDON

Term	Rate	Change
3 months	5.50%	-0.01%
6 months	5.50%	-0.01%
12 months	5.50%	-0.01%

### EURO CURRENCY INTEREST RATES

Term	Rate	Change
3 months	5.50%	-0.01%
6 months	5.50%	-0.01%
12 months	5.50%	-0.01%

### THREE MONTH EURO CURRENCY FUTURES (LIVER) DOLLAR POINTS OF 100%

Month	Rate	Change
Oct	100.00	+0.01
Nov	100.00	+0.01
Dec	100.00	+0.01

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### POUND SPOT FORWARD AGAINST THE POUND

Term	Rate	Change
1 month	1.54	+0.01
3 months	1.54	+0.01
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### CROSS RATES AND DERIVATIVES

#### CROSS RATES

Country	Rate	Change
USA	1.38	+0.02
Germany	1.54	+0.01
France	1.54	+0.01
UK	1.54	+0.01
Japan	137.8	+14

#### CROSS RATES

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#### CROSS RATES

The Co-operative Bank	7.50	Office Brothers	7.50
Cotton & Co	7.50	Royal Ex of Scotland	7.50
Cyprian Popular Bank	7.50	Scottish Widows Bank	7.50
Dutchman Lewis	7.50	Slinger & Friedlander	7.50



## COMMODITIES &amp; AGRICULTURE

## COFFEE WEATHER HITS FLOWER FORMATION

## Brazil's crop may not meet expectations

By Gary Mead

Expectations of a bumper coffee crop for 1998-99 in Brazil may be disappointed, according to official Brazilian sources, who yesterday said the harvest was likely to be 10-15 per cent below the official Brazilian forecast of 33.5m 60kg bags, made in July this year.

Various micro-climatic conditions, including irregular rainfall, the effects of which are only beginning to be felt, have meant poor formation of coffee flowers in some key growing areas, resulting in lower quality coffee cherries.

Brazilian government forecasts have in the past been criticised as misleading, but official estimates are now based on fieldwork research conducted by more than 350 agronomists - officials are well aware that their crop projections are under an international spotlight.

The last big harvest in Brazil was in 1987-88, when 38m bags were produced. If the 1998-99 harvest does turn out to be as low as 29m bags (15 per cent down on July's official estimate), futures markets could respond quite bullishly, amid fears of a tightening of global supplies.

Global coffee stocks are little more than enough to cover demand, and are expected to fall to 27.7m in 1997-98, from 34.5 per cent in 1996-97 and 35.4 per cent in 1995-96.

Demand, meanwhile, continues to grow. In 1997 global demand probably exceeded 100m 60kg bags for the first time, against 96.6m in 1996 and 96.3m in 1995, according to the International Coffee Organisation.

Coffee exports across Latin and central America have been reduced substantially this year as a result of wide-

spread drought. Mexico's are down by 13.4 per cent so far this year. Brazil's coffee exports in July were 1.36m bags, a record month generating receipts of \$207.5m, and latest figures from the country's coffee producer associations show as many as 1.7m bags were exported in August.

The ICO is itself under pressure from Brazil to undertake far-reaching reforms. On September 21-24 the ICO meets in London to review the international coffee agreement. Brazil, the biggest contributor to ICO funds, pays about \$500,000 (\$889,000) a year for membership and is likely to ask the ICO to introduce three reforms:

- To include private sector companies in its membership, which currently is limited to governments;
- To upgrade and improve its statistical database;
- To increase funding for a global coffee consumption programme, which will soon come to a halt for lack of financial support.

The programme to promote consumption is of great concern to Brazil and other producer nations, as several large potential markets, such as Russia and China, currently consume as little as 500 grammes annually per capita. Consumption in Brazil is set to increase from 12m bags to 15m bags a year by 2000, potentially further squeezing the market.

Coffee futures trading has been relatively quiet in the past few months and analysts have been expecting this to continue; any firmer indications that the Brazil crop will be substantially below earlier estimates will, however, provoke a more stridently bull market.

## Base metals prices seen as too low

By Kenneth Gooding, Mining Correspondent

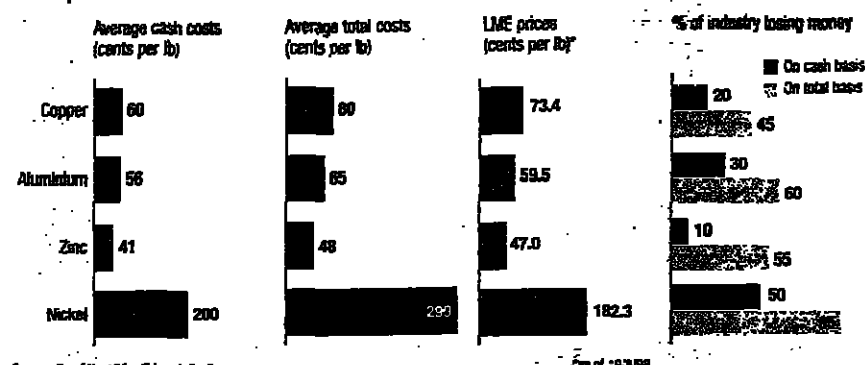
Base metals prices are at unsustainably low levels, with as much as 95 per cent of global nickel production losing money at present.

About 45 per cent of copper output is in the same boat, as is 55 per cent of aluminium production, according to an analysis by the Merrill Lynch investment bank.

"All the ingredients are there for a rapid price turnaround. Inventory levels, including hidden material, are generally very low. And current price levels are so low that many producers are losing money and there will be little or no investment in new capacity," said Ted Arnold, senior vice president and metals analyst, in Merrill's Commodity Market Trends publication.

The average price needed to justify new copper production capacity is about 95

## Metal production costs



Source: Merrill Lynch &amp; Co.

cents a pound (\$2,094 a tonne), he points out. For aluminium it is 75 cents (\$1,653 a tonne), for zinc 55 cents (\$1,212) and for nickel 275 cents (\$6,061).

Last night at the London Metal Exchange cash prices of these metals were 74.4 cents or \$1,640; 64 cents or \$1,413; 47.4 cents or \$1,044; and 187 cents or \$4,130 respectively.

The analyst said average prices so far this year were 19 per cent below that needed to attract new investment in the case of copper, 16 per cent below for aluminium, 13 per cent for zinc and 18 per cent for nickel.

"This is totally unsustainable in the longer term unless you assume that there will never, ever be any more consumption growth."

Mr Arnold said he is a "bull" of metals but stressed that he is not expecting dramatic recoveries next year. "What is likely to happen is for prices increasingly to move sideways over coming months with the price bottoms each time proving modestly higher than the previous ones. And the bottoms will be above the lows seen in July and early August."

## India on track for record food grains harvest

By Kunal Bose in Calcutta

India is on track for record food grains production in the 1998-99 season. Favourable weather and a rise in the amount of land under crops mean the harvest is likely to

total more than 207m tonnes, according to Dr Mangla Rai, deputy director general of the Indian Council of Agricultural Research.

That compares with 194m tonnes last season and the previous record of 198.3m tonnes in 1996-97. However, the size of the harvest still depends on the progress of the monsoon this month, and the even distribution of rain in the big growing centres.

Agriculture ministry officials are confident of a rise in production because 32 of the 35 meteorological subdivisions in India have received normal or more than normal rain.

Some of the earlier deficit areas, such as eastern Madhya Pradesh, western Orissa and parts of Bihar, have also seen higher precipitation.

Improved surveillance systems and high day temperatures mean the crops have remained largely free from pests and diseases. Rice, the biggest food grain crop for the kharif (summer monsoon) season, has so far been sown over 28m hectares, up 600,000 hectares over last season.



Expected crops will allow the government to maintain large stocks and control prices. Tony Andrews

A bigger volume of food grains is harvested during the kharif season than the rabi (winter) season.

Experts say if the monsoon does not falter there will be a long winter, which will boost the rabi food grains production.

The expected bumper production will allow the government to maintain a large buffer stock and control price rises.

However, in the Indian Economic Survey 1997-98 the government has warned that "yield rates appear to have plateaued in major wheat and rice growing areas".

"Eastern Uttar Pradesh, Bihar and Orissa should be the target areas, where higher investment in rural infrastructure by way of improved water conservation and delivery system, fertiliser use and credit availability should receive special focus."

## Jump in copper stocks on LME

## MARKETS REPORT

By Robert Corrine and Agencies

London Metal Exchange warehouse stocks of copper rose 16,150 tonnes to 333,550 tonnes yesterday, the largest one-day increase for over a year. Traders suggested it was the result of action by a commercial trader who was being squeezed.

While the rise had little impact on the benchmark LME three-month price, the September-October backwardation evaporated. Backwardation occurs when prices for immediate delivery are higher than those for future delivery. At the last close, three-month copper was unchanged at \$1.643 compared with Tuesday.

Oil prices softened yesterday after tropical storm Earl passed through the main US offshore oil producing area in the Gulf of Mexico, apparently without causing any significant damage.

Brent Blend for October delivery was quoted at \$12.55 a barrel in late trading on London's International Petroleum Exchange, 4 cents down on Tuesday's close.

Yesterday afternoon oil companies began sending crews back to offshore platforms that had been evacuated on Tuesday as the storm approached the area.

The US government's Minerals Management Service reported that 60 per cent of the Gulf's oil capacity, equivalent to 650,000 barrels a day of output, had been shut in as a result of the hurricane precautions.

The markets were also affected by the latest figures on US crude and refined product stocks. The American Petroleum Institute reported the third consecutive weekly draw-down in crude inventories, although US oil stocks are still 30m barrels higher than at this time last year.

## COMMODITIES PRICES

## BASE METALS

LONDON METAL EXCHANGE

Prices from Anonymous Metal Trading

ALUMINIUM, 99.99% (per tonne)

Cash 3 mths

Close 1391.2 1409.10

Previous 1390.5-15 1379.80

High/Low 1409.10-120

AM Official 1396.91 1409.05

Kerb close 1396.91 1414.5

Open int 290,114

Total daily turnover 118,029

ALUMINIUM ALLOY 5 (per tonne)

Close 1185.50 1210.12

Previous 1175.75 1193.25

High/Low 1215.19-190

AM Official 1180.91 1211.18

Kerb close 1180.91 1215.7

Open int 7,328

Total daily turnover 1,814

LEAD 5 (per tonne)

Close 526.5-7.5 537.8

Previous 529.38 538.40

High/Low 540.06-5

AM Official 525.26 536.7

Kerb close 525.26 536.7

Open int 35,716

Total daily turnover 5,263

NICKEL, 5 (per tonne)

Close 4070-80 4135-45

Previous 4065-85 4150-55

High/Low 4150.20-130

AM Official 4115.20 4180.45

Kerb close 4115.20 4180.45

Open int 57,028

Total daily turnover 11,331

ZINC, special high grade (per tonne)

Close 1022.3 1045.4

Previous 1025.5-6 1048.5

High/Low 1048.5-5

AM Official 1021.22 1043.44

Kerb close 1021.22 1043.44

Open int 65,698

Total daily turnover 15,180

COPPER, grade A (per tonne)

Close 1635.5 1645.6

Previous 1638.40 1653.3

High/Low 1653.3-3

AM Official 1647.47.5 1649.50

Kerb close 1647.47.5 1649.50

Open int 156,396

Total daily turnover 87,228

LME AM Official 5/8 rate 1.6874

LME Closing 5/8 rate 1.6880

Sept 1998 3 mths 1.6817 6 mths 1.6535 9 mths 1.6470

## Precious Metals continued

GOLD COMEX (100 Troy oz, \$/Troy oz)

Sett. Day's price change High Low Vol

Sep 280.3 +1.3 280.6 3 3

Oct 281.1 +1.3 282.1 280.8 981 11,606

Nov 283.4 +1.2 284.5 281.9 31,424 116.78

Dec 285.3 +1.1 286.3 283.9 568 13,321

Jan 285.8 +1.1 287.8 284.6 55 11,271

Feb 286.1 +1.1 290.2 288.8 132 14,992

Total 34,585,205.04

PLATINUM NYMEX (500 Troy oz, \$/Troy oz)

Sett. Day's price change High Low Vol

Oct 368.9 +5.0 371.5 366.5 1,216 9,787

Nov 370.3 +5.2 372.5 368.5 45 1,164

Dec 371.9 +5.2 374.5 369.5 18 1,181

Jan 372.9 +5.2 375.5 369.5 18 1,181

Total 1,281 10,881

PALLADIUM NYMEX (100 Troy oz, \$/Troy oz)

Sett. Day's price change High Low Vol

Sep 282.00 +1.50 283.00 281.00 66 365

Oct 280.00 +3.00 281.00 278.75 120 2,330

Nov 277.50 +3.50 279.00 274.00 35 23

Total 198 2,721

SILVER COMEX (5000 Troy oz, \$/Troy oz)

Sett. Day's price change High Low Vol

Sep 477.8 +4.8 480.5 475.0 1,806 2,344

Oct 484.0 +5.0 488.5 478.0 15,127 37,944

Nov 485.9 +5.0 488.0 480.0 48 39

Dec 487.5 +5.0 491.0 488.0 520 8,675

Jan 489.3 +5.0 491.0 485.0 11 1,822

Feb 491.9 +5.0 494.5 491.5 21 2,354

Total 17,478 80,883

ENERGY

CRUDE OIL NYMEX (1,000 barrels, \$/barrel)

Sett. Day's price change High Low Vol

Oct 13.57 -0.16 13.78 13.55 80,043 120.31

Nov 13.80 -0.17 13.98 13.60 90,037 46,005

Dec 14.10 -0.12 14.25 14.00 115,252 39,586

Jan 14.40 -0.15 14.58 14.25 143,542 37,308

Feb 14.82 -0.14 14.98 14.60 2,830 12,282

Mar 14.87 -0.09 14.99 14.85 625 15,073

Total 13,883 488,536

CRUDE OIL P.E. (\$/barrel)

Sett. Day's price change High Low Vol

Oct 12.53 -0.06 12.59 12.44 18,054 46,460

Nov 12.78 -0.11 12.92 12.71 8,159 39,845

Dec 13.16 -0.08 13.24 13.08 11,629 39,542

Jan 13.28 -0.06 13.30 13.16 11,446 29,361

Feb 13.40 -0.09 13.50 13.38 415 18,132

Mar 13.60 -0.06 13.68 13.54 672 19,928

Total 67,212 303,888

HEATING OIL NYMEX (10,000 US gal, \$/US gal)

Sett. Day's price change High Low Vol

Oct 36.05 -0.41 37.00 36.70 21,227 52,385

Nov 36.90 -0.28 37.30 37.00 15,391 20,887

Dec 36.75 -0.32 37.15 36.45 14,244 20,763

Jan 40.60 -0.23 41.00 40.40 958 25,523

Feb 41.50 -0.22 41.80 41.25 987 19,884

Mar 42.10 -0.23 42.45 41.85 36,289 108,734

## GRAINS AND OIL SEEDS

WHEAT Liffe (100 tonnes, \$/tonne)

Sett. Day's price change High Low Vol

Sep 20.40 +0.40 20.75 20.25 22 182

Oct 20.11 +0.35 20.60 20.00 103 3,047

Nov 20.40 +0.35 20.75 20.25 120 2,127

Dec 20.11 +0.35 20.60 20.00 103 3,047

Jan 20.40 +0.35 20.75 20.25 120 2,127

Feb 20.11 +0.35 20.60 20.00 103 3,047

Total 386 7,228

WHEAT COT (5,000 lbs, \$/cwt, \$/cwt)

Sett. Day's price change High Low Vol

Sep 240.00 +3.50 241.50 237.50 6,581 4,789

Oct 236.25 +2.75 238.50 233.50 20,037 7,388

Nov 232.50 +2.50 235.00 227.50 18,717 6,458

Dec 232.50 +2.50 235.00 227.50 18,717 6,458

Jan 232.50 +2.50 235.00 227.50 18,717 6,458

Feb 232.50 +2.50 235.00 227.50 18,717 6,458

Total 34,884 134,884

MAIZE COT (5,000 lbs, \$/cwt, \$/cwt)

Sett. Day's price change High Low Vol

Sep 192.25 +2.25 195.25 188.25 15,637 11,189

Oct 194.50 +1.50 197.50 190.50 18,076 8,170

Nov 191.75 +1.25 194.75 184.75 17,307 7,007

Dec 191.75 +1.25 194.75 184.75 17,307 7,007

Jan 191.75 +1.25 194.75 184.75 17,307 7,007

Feb 191.75 +1.25 194.75 184.75 17,307 7,007

Total 82,146 314,679

BARLEY Liffe (100 tonnes, \$/tonne)

Sett. Day's price change High Low Vol

Sep 68.25 +1.25 69.50 67.50 7 889

Oct 67.75 +0.75 68.75 67.00 11 416

Nov 67.75 +0.75 68.75 67.00 11 416

Dec 67.75 +0.75 68.75 67.00 11 416

Jan 67.75 +0.75 68.75 67.00 11 416

Feb 67.75 +0.75 68.75 67.00 11 416

Total 23 1,284

SOYABEANS COT (5,000 lbs, \$/cwt, \$/cwt)

Sett. Day's price change High Low Vol

Sep 225.50 +2.25 228.00 222.00 2,711 6,381







**FT MANAGED FUNDS SERVICE**

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

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15 SEPTEMBER 1998  
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FT MANAGED FUNDS SERVICE

Offshore Insurances and Other Funds

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Professional Investment Consultants			Asia Debt Management Hong Kong Ltd			Global Fund Managers Ltd			Indian Asia			Morgan Funds - Contd.			PFS International			Societe Generale Group		
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## LONDON STOCK EXCHANGE

## Dow's big gain helps equities to recoup losses

## MARKET REPORT

By Steve Thompson,  
UK Stock Market Editor

London's equity market delivered a powerful follow-through to Wall Street's strong recovery, with the FTSE 100 index recouping nearly all of Tuesday's losses as part of a global rally.

The better trend in London had been anticipated by marketmakers late on Tuesday as Wall Street was getting into its stride, prior to posting its second biggest-ever points gain on the Dow Jones Industrial Average.

The Dow finished Tuesday 288 points or 3.6 per cent higher, regaining more than half of Monday's 512-point slide, as some of the intense heat generated by the Russian political and economic crises abated.

Wall Street's rally was picked up by most of the Asian stock markets and continued into Europe, where French and German stocks posted big gains across the board. And there was renewed strength on Wall Street at the outset of trading yesterday, when the Dow built on a slow opening to show another three-figure

advance an hour after London closed its trading books. What impressed traders in London was the breadth of the recovery in domestic stock prices.

There had been concerns to the leading stocks, if the second-liners and small-caps suffered a belated wave of selling by private investors unable to move as quickly as the big institutions.

In the event, very little selling of the smaller stocks developed and both the junior indices raced ahead in line with the FTSE 100.

At the close of a much busier session than Tuesday's in terms of shares traded, the FTSE 100 was 66.7 higher at 5,235.4, halting a sequence of four losing sessions that saw the index down 455.3 or 8.6 per cent. At its best yesterday, Footsie was up 172.5 at 5,341.6.

Even more impressive was the performance of the FTSE 250 index, which raced up 84.7 or 1.8 per cent to end at 4,712.0, not far short of the day's 4,727.1 best.

The FTSE SmallCap, although burdened by a halving of the share price of Maiden Group, the outdoor advertising company,

pushed up 33.9 or 1.6 per cent closing at a session high of 2,078.5.

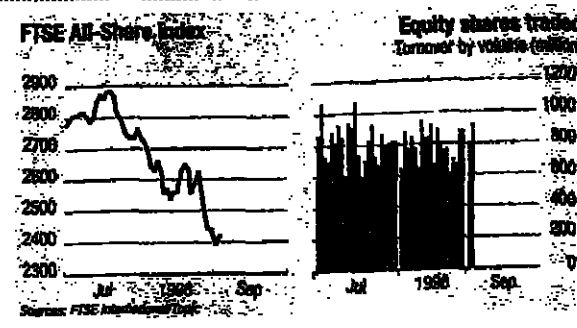
There was additional help for UK stocks from the further decline in sterling, which saw the Bank of England's trade-weighted index ease 0.3 to 105.0, a two-day fall of 1.0.

And rumblings that a cut in UK interest rates in the not-too-distant future is looking more of a possibility gave a push to many consumer stocks, which have been damaged by fears of recession.

Supportive comments from President Clinton about

President Yeltsin and a report that Kishi Miyazawa, the Japanese finance minister, will discuss the potential for a reduction in US interest rates over the weekend with Alan Greenspan, chairman of the US Federal Reserve, added to the bullish mood of markets.

Turnover at 6pm was 929.6m shares, with FTSE 100 stocks accounting for 55 per cent. High-tech stocks, given such a hard time in the market on Tuesday, staged a determined rally, providing five out of the top 10 stocks in the FTSE 250 index.



Equity shares traded  
Turnover by value (£m)

Index	Value	Change
FTSE 100	2,078.5	+1.6%
FTSE 250	4,712.0	+1.8%
FTSE 100/250	5,235.4	+3.6%
10 yr Gilt yield	5.51	-0.01
Long gilts yield rate	1.86	1.50

Best performing sectors

Sector	Change
1 Insurance	+5.4
2 Extractive ind	+5.2
3 Support services	+3.6
4 Leisure & Retail	+2.9
5 Construction	+2.9

Worst performing sectors

Sector	Change
1 Alcoholic beverages	-1.3
2 Diversified ind	-0.1
3 Media	-0.1
4 Banker Retail	-0.1
5 Real estate	-0.4

## Hi-techs lifted by CMG

## COMPANIES REPORT

By Martin Brice and Joel Kibazo

Information technology stocks bounced off the lows reached on Tuesday. Sentiment in the sector was helped by a good performance in IT shares on Wall Street and strong results from Anglo-Dutch software and services group CMG that prompted upgrades.

Shares in CMG recovered much more than the ground lost in the markdown as they closed up 187p at 518.62p. It unveiled interim pre-tax profits up from £15m to £24m with traders suggesting that upgrades of about 5 per cent for the full year were likely.

Graham Brown, IT analyst at Sutherland, said he had increased his forecast for the full year from £48.7m to £52.5m. His earnings per share forecast of 26p puts the stock on a prospective price/earnings ratio of 72 times, making them one of the most highly rated in the market.

He has a "reduce" stance, and said: "CMG's markets are buoyant and it is trading well in those markets so a premium rating is deserved. But whether the premium should be as high as this is a moot point."

The rise of about 11 per

cent in CMG shares was mirrored by other leading stocks in the sector. Sema rose 66 to 581p, while Sage gained 102p to £12.40. Footsie stock, Misy, was up 198 at £25.62. It was one of the worst performers in the FTSE 100 on Tuesday, but yesterday was one of the best.

Elsewhere in high-tech stocks, electronic equipment group Arm Holdings reflected the appetite for such shares. It was the best MidCap performer as the stock rose 140 to £11.05. Computer groups Acorn and Apple hold substantial stakes.

Billiton was the best Foot-

sie performer ahead of results due on Monday as investors seemed to take the view that the shares were likely to escape relegation from the blue-chip index. They struggled off the 52p low of 98p reached on Tuesday to close up 15p at 114p, still well below the year's high of 249p.

Some brokers' houses are said to have told clients the FTSE UK indices committee expects any changes in the composition of the index and Billiton is expected to try very hard to produce a bounce in the shares on the day of the results.

## Best and worst performing FTSE sectors

Insurance

2800

2600

2400

2200

2000

Source: Investment Research

## Alcoholic Beverages

2800

2600

2400

2200

2000

Source: Investment Research

## Further weakness in the pound

The D-Mark benefited engineers, with Siebe leading the pack. It rose 12p to 222p after it said it had sold its North Africa Safety Products business to Novorus Safety Products of the US for £157m cash.

Smiths Industries was up 30p at 671p with sentiment in the sector helped by bullish comments from its chief executive, Keith Butler-Wheelhouse. He expects to see \$500m of sales from the Eurofighter deal.

Property stocks were enlivened by the news that the long-term bears of the sector Alan Carter and Mike Prew, now at Credit Suisse First Boston, have turned less cautious on the sector.

The analysts upgraded their sector recommendation to "neutral" for the short term, although strategically they remain long-term bears.

In a note to clients explaining the shift, the CSFB team said: "Having reassessed our target discount of 15 per cent, sector ratings offer defensive merits. Rental growth is slowing but property yields may now be underpinned by bonds,

Cairn board

The entire board of Cairn Energy took advantage of the near 6 per cent fall in the company's shares amid the general market decline on Tuesday to buy stock yesterday. Eight directors paid 108p each for a total of 274,417 shares.

A further sign of confidence in the shares' future performance came as finance director Kevin Hart was awarded options with a strike price of 110p, above the 104p at which they closed yesterday, up a penny.

Semi-conductor maker BCO Technologies brought some rare good news from the sector. The stock was up a penny at 182p after it said interim turnover had almost doubled.

Investor appetite for support-services stocks was highlighted by the rise of 35 to 123.27p by Serco, the worst Footsie performance.

facilities management group

that privatises government-owned services. It unveiled a pre-tax gain of 20 per cent to £12.7m.

Geoff Allum at Henderson Crosthwaite said: "There is a permanent and accelerating structural change in the way economies operate and these guys are at the forefront of it."

Shares in Cable & Wireless Communications rose 10 to 506p as the market appreciated news that the UK group had agreed a 10 year £1.8bn strategic deal with IBM of the US.

Under the terms of the deal, IBM will provide the support required by CWC to improve business efficiency and service to customers. The partnership will involve the transfer of 1,000 staff from CWC to IBM Global Services, and the creation of up to 400 new jobs.

CWC is 54 per cent owned by Cable & Wireless, which jumped 25p to 594p in trade of 9.7m, with the recovery in the Hong Kong market said to have boosted interest in the stock yesterday. Hongkong Telecom, in which Cable & Wireless holds a majority stake, is a significant contributor to total group profits for the UK company.

In the rest of the telecoms, Orange, one of the best performers in the Footsie this year, remained in the doldrums as profit-taking continued and the market fretted about the possibility that Hutchison Whampoa might be considering reducing its holding in the company. The shares lost 28 to 584p, but those of rival mobile phones operator Vodafone Group were in demand and they closed 7 up at 748p.

Fears that Rank Group might be dropped from the FTSE 100 next week saw the shares relinquish 15p or 5.6 per cent to 258p, the worst Footsie performance.

FT 30 INDEX

Index	2 Sep	3 Sep	4 Sep	5 Sep	6 Sep	7 Sep	8 Sep	9 Sep	10 Sep	11 Sep	12 Sep	13 Sep	14 Sep	15 Sep	16 Sep	17 Sep	18 Sep	19 Sep	20 Sep	21 Sep	22 Sep	23 Sep	24 Sep	25 Sep	26 Sep	27 Sep	28 Sep	29 Sep	30 Sep		
FT 30	3343.0	3300.5	3228.5	3406.2	3540.2	3165.7	3864.0	3300.5																							
Oil (w/ yield)	3.22	3.28	3.21	3.12	3.10	3.56	4.22	2.72																							
FT 100	3343.0	3300.5	3228.5	3406.2	3540.2	3165.7	3864.0	3300.5																							
FT 250	4712.0	4688.4	4719.0	4721.4	4721.4	4721.4	4721.4	4721.4																							
FT SmallCap	2078.5	2078.5	2078.5	2078.5	2078.5	2078.5	2078.5	2078.5																							
FT 30 weekly changes	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0																							
FT 30 daily changes	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0																							

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STOCK MARKET TRADING DATA

Index	2 Sep	3 Sep	4 Sep	5 Sep	6 Sep	7 Sep	8 Sep	9 Sep	10 Sep	11 Sep	12 Sep	13 Sep	14 Sep	15 Sep	16 Sep	17 Sep	18 Sep	19 Sep	20 Sep	21 Sep	22 Sep	23 Sep	24 Sep	25 Sep	26 Sep	27 Sep	28 Sep	29 Sep	30 Sep		
SEMI	74,249	80,734	72,300	56,591	53,198	29,084																									
Equity turnover (m)	3,310.1	3,472.1	2,957.9	2,870.5	1,908.7																										
Equity turnover (m)	56,212	55,559	41,284	38,821	32,889																										
Share turnover (m)	72.0	69.3	68.9	66.1	59.3																										
Total market turnover	78,072	72,192	53,380	54,653																											
Total turnover (m)	929.6	955.2	1,068.1	949.5	907.4																										
Trackpoint turnover (m)	29.9	54.8	47.3	33.0	33.4																										
Trackpoint share (m)	9.5	12.5	7.6	10.0	10.8																										
FTSE 100 turnover (m)	1,696	1,696	1,696	1,696	1,696																										
FTSE 250 turnover (m)	307	307	307	307	307																										
FTSE SmallCap turnover (m)	1,059	1,059	1,059	1,059	1,059																										

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THE NASDAQ STOCK

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# STOCK MARKETS

## Summer falls give way to autumn hopes

### WORLD OVERVIEW

Share prices staged a rebound in most parts of the globe after Wall Street's sturdy recovery on Tuesday, writes Philip Coggan.

The Dow Jones Industrial Average had gained 288 points, offsetting more than half of Monday's losses. In the heaviest volume ever.

That set a positive tone for trading in Asia and Europe where investors took the chance to put August's

losses behind them and enjoy the rally. And Wall Street kept up the momentum when it opened yesterday, with the Dow in positive territory throughout the New York morning.

What was not clear was whether the rebound was any more solid than the previous upticks that have punctuated the correction, which began in mid-July and deteriorated after Russia's effective devaluation and default.

One bull whose faith has not been dented by the Russian crisis is Joe Rooney, global equity strategist at Lehman Brothers. "The market's concerns centre on the amount of damage that emerging markets can do to the global financial system. Given that we attach a very low risk to a credit-induced deep recession, we maintain our overweight exposure to equities within our global balanced funds," he said.

During some of August's

worst moments, traders expressed the hope that the return of senior fund managers to their desks in September would provoke a rally, on the basis of improved valuations for equities.

There was modest encouragement for that school of thought yesterday, with many European markets up by 2-3 per cent and indications of a switch back into equities from bonds.

Europe's strength came despite the recent weakness

of the dollar against the D-Mark. Normally, a rising dollar is seen as supportive for European bourses, because of the effect on export prospects.

In Asia, however, the recent strength of the yen against the dollar is seen as unambiguously positive, as it reduces the pressure for devaluation in Hong Kong and China.

Indeed, such was the region's *sung froid* that the latest restrictions on free

markets in Malaysia and Hong Kong were shrugged off by investors.

Malaysia even regained most of Tuesday's 13 per cent loss, which followed the imposition of capital controls, as the government fixed the ringgit at 3.8 to the dollar. The sacking of Anwar Ibrahim as finance minister came after the market close.

Hong Kong was also stronger after the authorities restricted short-selling in three leading stocks.

### EMERGING MARKET FOCUS

## Bank speculation enlivens Tallinn

While the Russian crisis sent global stock markets on a downward spiral, the Tallinn bourse posted strong gains last week. The TALSE index climbed 10.05 per cent to 160.90 by Friday's close.

The market was kept buoyant by strong interest in Hansabank, the largest bank in the Baltic region. Hansabank stock rose as Sweden and Skandinaviska Enskilda Banken (SEB) rose as well.

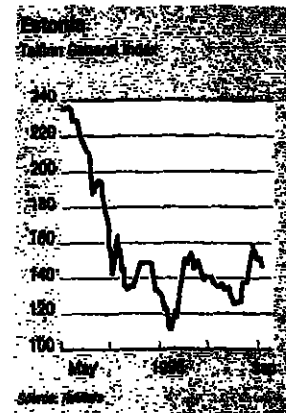
By Monday, Swedenbank had increased its holding in Hansabank to 25 per cent from 10.29 per cent, while SEB Banken said it had boosted its presence to 10 per cent from less than one per cent.

The heavy buying has fuelled speculation that either bank may be planning to enter the local market through an alliance with Hansabank. Hansabank management said last week it had discussed a possible strategic partnership with SEB Banken, and the Swedish shopping spree "was driven by the intention to maintain and develop existing ties".

SE Banken has worked with Hansabank in the past, and the Swedish bank's corporate finance arm is active in the Baltic region. Local analysts said one of the two Swedish banks is likely to buy out the others' stake in Hansabank.

The heavy buying of Hansabank stock, which had kept the market strong for the past two weeks, subsided by Tuesday, when the TALSE index fell 3.79 per cent to 144.54. Yesterday the index closed up 0.52 per cent at 145.70.

The omens for the market are not good, however. The announcement on Tuesday that Forekspansk, a small corporate bank, was to merge with Estonian Investment Bank did not capture the market's imagination. Earlier, Forekspansk's 1.5m share issue flopped when it was undersubscribed by



250,000 shares, amidst concerns about the bank's exposure to Russia.

Esti Bank, the central bank, has estimated the exposure of Estonian commercial banks in the Russian debt market to be minimal at around Ekr45m (\$3.12m). However, the banks through their subsidiaries in Russia and Latvia are thought to have investments in Russia in excess of Ekr300m.

The export-oriented sector of Estonia's economy is already bracing itself for a fall in demand from the Russian market, which accounts for 12 per cent of all exports.

Food processing companies are likely to be hit hardest. A number of companies have already announced plans to end sales to Russia because they are unsure of receiving payment.

Analysts are talking of "attractive" buying opportunities should the market fall through the floor in the coming weeks.

The locals are taking it in their stride. "This isn't the most attractive place to invest in the world, but we cannot separate ourselves from our geographical location," said Veliko Maripuu at Tallinvest Supreme Securities. "Sooner or later this region will be considered part of Scandinavia," he added hopefully.

Matej Vipotnik

## High-techs keep Dow on upward path

### AMERICAS

US shares gained ground in early trading with strong demand for technology issues helping to push the Dow Jones Industrial Average back above 7,900, writes John Labate in New York.

The breadth of the improvement was impressive with advancing stocks ahead of declining ones by more than 2 to 1. Investors were selective but many of the bull market's traditional star performers led the market higher.

By midday, the Dow had added 72.90 or 0.9 per cent to 7,900.03 while the broader Standard & Poor's 500 was 11.88 higher at 1,006.15. The morning's strongest advance came in the Nasdaq composite, which rose more than 2.2 per cent or 35.05 to 1,610.14.

Among Dow components, IBM climbed 4 1/4% or more than 4 per cent to \$122 1/4 after Cable & Wireless of the UK said it had reached a \$3bn outsourcing deal with the computer company. Travelers were also on the mend, up 3 1/4% to \$45.

Several other financial shares were bid higher. Chase Manhattan gained 1 1/4% to \$56 1/4 after the bank said it would take a \$200m charge for the third quarter due to its exposure to Russian and Asian markets.

Brokerage stocks were mostly higher, with Charles Schwab gaining more than 9 per cent or \$27 to \$33 1/4. Lehman Brothers was also up more than 9 per cent to \$43 1/4. Donaldson, Lufkin & Jenrette gained 3 1/4% to \$39 1/4 after releasing partial third-quarter figures damaged by Russian and other global markets.

Northwest Airlines fell 1 1/4

to \$27 1/4 after the company said it had laid off 27,000 employees. Internet shares roared back to life with Amazon.com up 10 per cent to \$88 1/4 after it said it had reached an expanded agreement with Yahoo!

Shares of Yahoo! were up 12 per cent to \$81 after it said it would become part of the Nasdaq 100 index.

Retailer stocks were mixed. CompUSA gained 10 per cent to \$14 1/4 after CSFB raised its rating to "buy". NineWest plunged more than 32 per cent to \$10 1/4 on concerns about upcoming quarterly results.

TORONTO rose strongly in early trading as the Canadian dollar rallied on foreign exchange.

The banks took their cue from the improved currency sentiment with strong gains, and by noon the 300 composite index was up 139.30 at 5,677.40.

Royal Bank of Canada gained C\$1.35 to C\$60.10 and Bank of Montreal rose C\$1.60 to C\$56.40. Bank of Nova Scotia improved 20 cents to C\$25.50.

Golds were in favour, taking comfort from another solid day for the bullion price. Barrick added 55 cents to C\$21.10 and Placer Dome put on 45 cents at C\$13.65.

Alcan Aluminium improved C\$1.55 to C\$32.50 and Northern Telecom gained 20 cents at C\$79.50. Strike action pushed Air Canada lower at the opening bell, but by midday the shares had improved 20 cents to C\$7.10.

Potash Corp of Saskatchewan jumped C\$5.10 to C\$31 after CS First Boston upgraded the stock from "buy" to "strong buy".

## Wall St aids Zurich recovery

### EUROPE

Wall Street's better showing, and another round of short covering, propelled ZURICH 3.9 per cent higher after recent sharp losses.

The SMI index climbed 256.4 to 6,840.9, recovering some of the 22 per cent decline seen since the market peaked on July 21.

Financials were at the centre of attention as UBS picked up Sfr31.50 or 6.9 per cent to Sfr489.50 and CS Group Sfr78 to Sfr249.

Among insurers, Swiss Re shot up Sfr163 to Sfr333 after Merrill Lynch upgraded the stock and the market awaited the release of first-half results after the close.

Among other blue chips, Novartis was in demand after Daniel Vassella, its chief executive officer, said he remained optimistic about sales growth in the third quarter following a disappointing performance in the first half. Novartis gained Sfr47 to Sfr227.78, and Roche certificates Sfr385 to Sfr15,265.

Morgan Stanley, which raised its recommendation on European drug stocks, reiterated its positive stance on both Swiss groups.

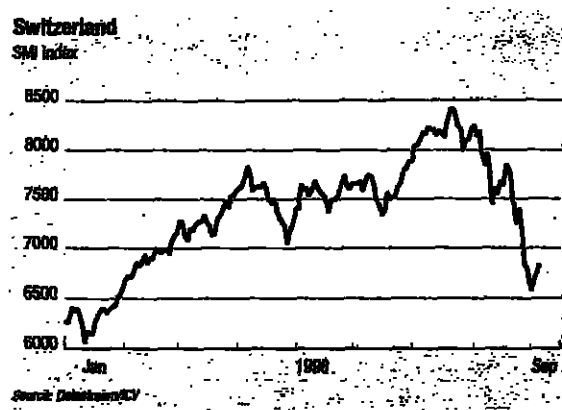
Clariant, expected today to deliver a rise in first-half net profits of about 26 per cent, rose Sfr36 to Sfr721.

ABB, a strong performer on Tuesday on speculation that investor Martin Ebner might be a buyer, put on another Sfr71 to Sfr1,783. Nestlé put on Sfr139 to Sfr2,720 after Tuesday's sharp falls.

PARIS climbed back above 3,700 on the CAC 40 index to close with a gain of 83.38 at 3,729.57 after another high-volume session with 21.4m shares changing hands.

Results news provided good support with oil heavyweights pushing higher after an upbeat interim trading statement from Total, and Sanofi surging on half-year results well ahead of broker expectations.

Total rose FF110 to FF566 and Elf Aquitaine FF727 to FF588. Sentiment in the sector has also been boosted by the rally for international oil



prices with Brent Blend, the North Sea marker price, breaking above \$12 a barrel.

Pharmaceuticals leader Sanofi rose FF735 to FF680. TV group Canal Plus jumped FF101 or 8.2 per cent to FF1,330 on an exclusive soccer broadcasting deal.

Banks were mixed. BNP shed FF3 to FF375 and Société Générale FF1 to FF1,000. But CCF advanced FF20 to FF494 and Paribas added FF18 to FF600.

Retailers saw selective action. Pinaut-Printemps rose FF775 to FF1,044 and Carrefour, boosted by acquisition news, added a further FF230 to FF3,707. In contrast, Promodes shed FF18 to FF338.

FRANKFURT rose but the Xetra Dax index failed to hold on to the key 5,000-point level. By the close of electronic trading, the index was 22.8 higher at 4,948.51, off an intra-day 5,013.77.

SAP was a winner, rising DM41 to DM1,034 after a Frankfurt prosecutor dropped insider trading cases against a management board member and two other employees, agreeing to charitable payments by the three.

Utilities had a good day with RWE up DM7.64 and Veba DM5.40 to DM59.40.

BMW bounced back from Tuesday's losses, up DM58 to DM128. VW slipped DM2.50 to DM132.50 after the chairman was reported as saying he would encourage liaison between the two groups and VW could take a stake of nearly 25 per cent in BMW.

AMSTERDAM saw invest-

ment unit. Banks rallied. Santander surged Pta170 or 6.2 per cent to Pta2,530 and BBV Pta50 to Pta2,000.

HELSINKI featured a 7.5 per cent rise in Baloise after the food and feeds group announced a deal securing raw material supplies for its cholesterol-cutting Benecol margarine, which should resolve a long-standing production bottleneck.

The Rasio shares picked up FM5 to FM71.50 after sharp losses over the last fortnight. The Hex index climbed 159.61 or 3.7 per cent to 4,328.23.

IN BRUSSELS, Systemat, the information technology provider, soared 15.6 per cent after better-than-expected results prompted positive ratings reports. The shares closed Bfr490 higher at Bfr3,640, off an intra-day Bfr3,695.

The Bel-20 index jumped 132.50 or 4.3 per cent to 3,250.68, helped by a Bfr275 rise in KBC to Bfr2,976 in a rebound after Tuesday's fall.

WARSAW rocketed 8.2 per cent in a technical rebound after losses totalling 27 per cent over the previous fortnight. The Wig index climbed 83.9 to 1,177.8.

ATHENS rose 5.2 per cent, lifted by strong performance in the banking and construction sectors. The general index rose 107.79 to 2,300.40.

Written and edited by Michael Morgan, Jeffrey Brown, Peter Hall and Paul Grogan

Tabacalera rose Pta120 to Pta3,070 on plans to float off the tobacco giant's distribu-

## Mexico City jumps 7%

MEXICO CITY, which was closed on Tuesday for the president's state-of-the-nation address, powered back with a 7.5 per cent surge in spite of negative currency news from Colombia. At mid-session, the benchmark IPC index was up 225.16 at 3,217.09 with investors intent on making up for lost time.

SAO PAULO also pushed higher. Telebras softened 0.7

per cent to R\$88.50 but Petrobras surged 11.4 per cent to R\$147 and Eletrobras 7.7 per cent to R\$22.60. The Bovespa index had gained 157 or 2.2 per cent at 7,074 by early afternoon.

CARACAS added 47.46 to 2,877.58 on the IBC index in spite of gathering currency clouds following news that Colombia had effectively devalued by widening the trading band on the peso.

## Gold index continues rally

### SOUTH AFRICA

Shares in Johannesburg continued to push higher, helped by further strong gains for golds, which extended their rally to 10 per cent in three straight days. On broad-based buying,

the all share index rose 2.2 per cent to 4,911.5. Industrials jumped 1.9 per cent to 5,807.5 and financials gained 1.6 per cent to 7,189.3.

Another good day for the bullion price lifted golds and the sector index added 1.9 per cent to 825.6.

## Kuala Lumpur recoups big losses

### ASIA PACIFIC

Shares in KUALA LUMPUR soared as investors scrambled to cover short positions after the government announced foreign exchange controls on Tuesday.

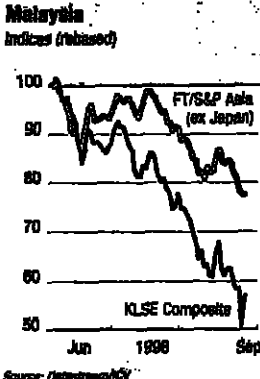
The composite index, down 13.3 per cent the previous session, recouped 12.1 per cent or 31.09 at 294.59, one of the largest ever single-day gains. Market volume was heavy compared with recent sessions at 183m shares, valued at M\$333m.

One dealer said there was still considerable confusion over the government's measures. Investors were short-covering on the futures so they would be able to get out of cash.

The exchange authorities said the new controls did not impose a one-year moratorium on the sale of shares, but proceeds of the sale would have to be kept in Malaysia for one year.

TOKYO posted modest gains for the third day running, but analysts cautioned that the advances came amid short-selling by investors, writes Alexandra Horney in Tokyo.

The Nikkei 225 Average edged up 8.99 to 14,376.52 after trading between 14,267.16 and 14,589.41. The



Topix index of all first-section stocks added 8.61 at 1,118.76. Trading volume was up slightly from the previous day, but still light at 485m shares.

The banking sector rose 3.9 per cent. Analysts attributed the gains to the improved outlook for a bill to resolve the financial sector's credit problems now under debate in parliament.

Sakura Bank, which this week announced plans to restructure its operations and increase its capital with investments from several Japanese companies, rose Y8 to Y282. Sakura was the most heavily traded share.

Long Term Credit Bank of Japan, the troubled lending

institution considered a test case for the government's response to the banking sector's bad loan problems, gained Y1 to Y51.

Fuji Bank was up Y27 to Y432, and Sumitomo Trust, which has been in merger talks with LTCB, climbed Y25 to Y374. Sanwa Bank was up Y40 to Y869.

Electronics and semiconductor advanced. Toshiba, which earlier in the week announced it would transfer its air-conditioning division to a joint venture with Carrier, the US group, improved Y18 to Y538. Hitachi, which this week closed a semiconductor factory in the US, gained Y43 to Y760.

In Osaka, the OSE index rose 144 points to 15,443.

HONG KONG rebounded strongly, but finished off its highs as short covering slowed late in the session. The Hang Seng index rocketed more than 8 per cent in the first 15 minutes of trade to a high of 7,501.38, but pulled back to close 293.20 up on the day at 7,355.87. Analysts noted that a firmer yen and lower local interbank rates also provided support.

HSBC, Hongkong Telecom and China Telecom were all marked higher after the exchange authorities suspended short-selling of

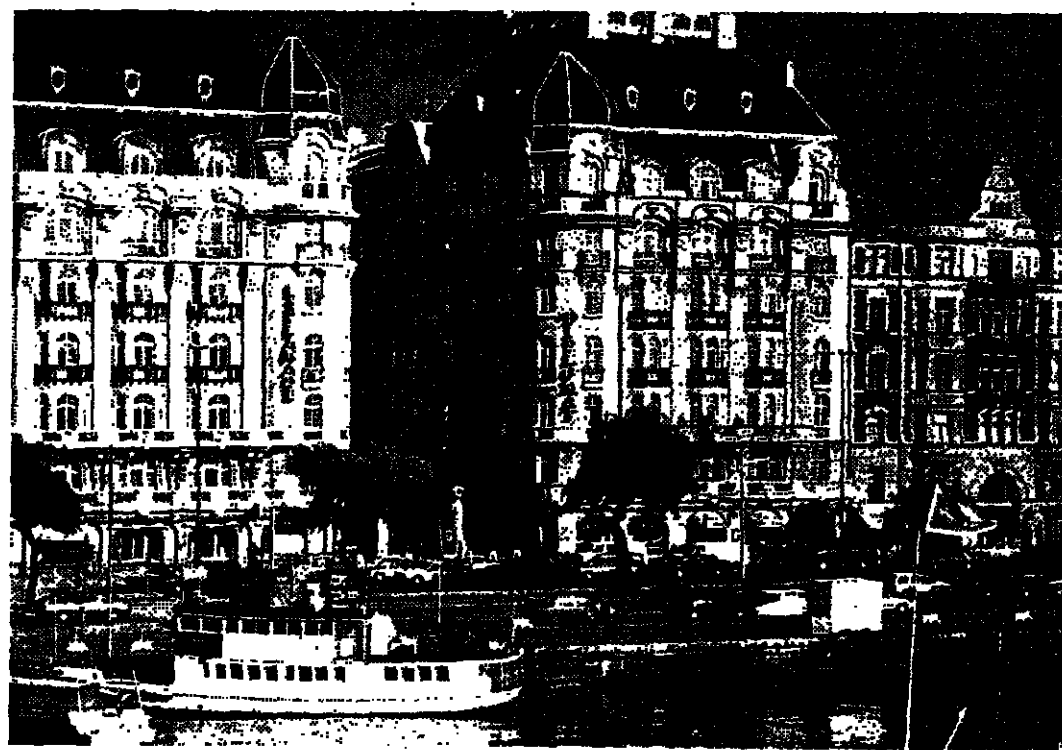
the stocks until settlement backlogs were cleared. HSBC rose HK\$4.50 to HK\$91.63. Hongkong Telecom added 65 cents to HK\$14.15 and China Telecom surged HK\$1.05 or 10.7 per cent to HK\$10.90.

SYDNEY swung higher, helped by strong gains for market heavyweights BHP and News Corp.

The All Ordinaries index rose 57.8 to 2,516 in solid turnover of 4,823m. BHP jumped 65 cents or 4.7 per cent to A\$12.30 and News Corp gained 42 cents to A\$10.68. Banking and insurance group AMP lost 24 cents to A\$20.75.

TAIPEI rose 136.59 to 6,471.68 on the weighted index in modest T\$98.6bn turnover. There was said to be some buying by state-owned funds. The electronics sector gained 3.1 per cent with Acer up T\$2.00 at T\$31.00 and Winbond T\$1.30 ahead at T\$25.20.

BANGKOK stood out against the broad regional recovery, shipping 3.50 or 1.7 per cent to 207.56 on the SET index. The bank and finance sectors fell more than 5.5 per cent in what brokers described as mostly technical selling. Thai Farmers Bank shed Bt1 to Bt16 in the busiest volume.



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EMERGING MARKET FOCUS

# Bank speculation enlivens Tallinn

While the Russian ruble and other emerging market currencies have been under pressure, the Tallinn market has been enjoying a boom. The TALLINX index climbed 10.5% per cent to 1,000 by Friday close.

The market was kept buoyant by strong interest in the TALLINX index, the largest index in the Baltic region. Meanwhile, stock prices in Stockholm and Copenhagen have been under pressure.

By Monday, the TALLINX index had risen to 1,000, up from 900 on the previous day. The index is up 10% from its start in 1997.

The heavy buying has fuelled speculation that the market may be reaching a peak. However, analysts say the market is still in the early stages of a boom.

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THE TALLINX INDEX HAS RISEN TO 1,000 BY FRIDAY CLOSE.

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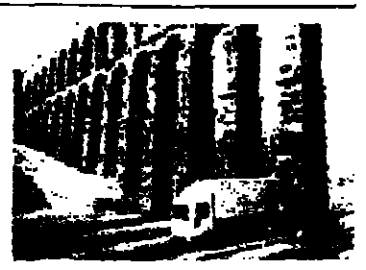
# FTauto

FINANCIAL TIMES REVIEW OF THE AUTOMOTIVE INDUSTRY



## inside

People: Kurt Lauk	Page 2
Companies	Page 2
Focus: Commercial vehicles	Pages 3-4
Focus: Asia in turmoil	Pages 6-7
New and updated	Page 7
Statistics	Page 8
Guest column: Bob Lutz	Page 8
Technology	Page 9



Thursday September 3 1998

Economic crises in Asia have added fuel to consolidation in most areas of the industry. Haig Simonian reports

## Link-ups have long way to run

In cars, commercial vehicles and components, one word sums up current thinking: consolidation. Those who reckoned the motor industry had already been concentrated into a handful of massive manufacturers, leaving a few obscure regional players or specialists to sweep up, have been proved wrong.

On September 18, shareholders in Daimler-Benz and Chrysler will vote to approve the deal which has spurred the latest consolidation wave. Assuming they give the green light, the new transatlantic amalgam could take shape by November.

But Daimler-Benz is just the most conspicuous example of a broader trend in the industry. Whether in cars, trucks or parts, consolidation shows no sign of abating.

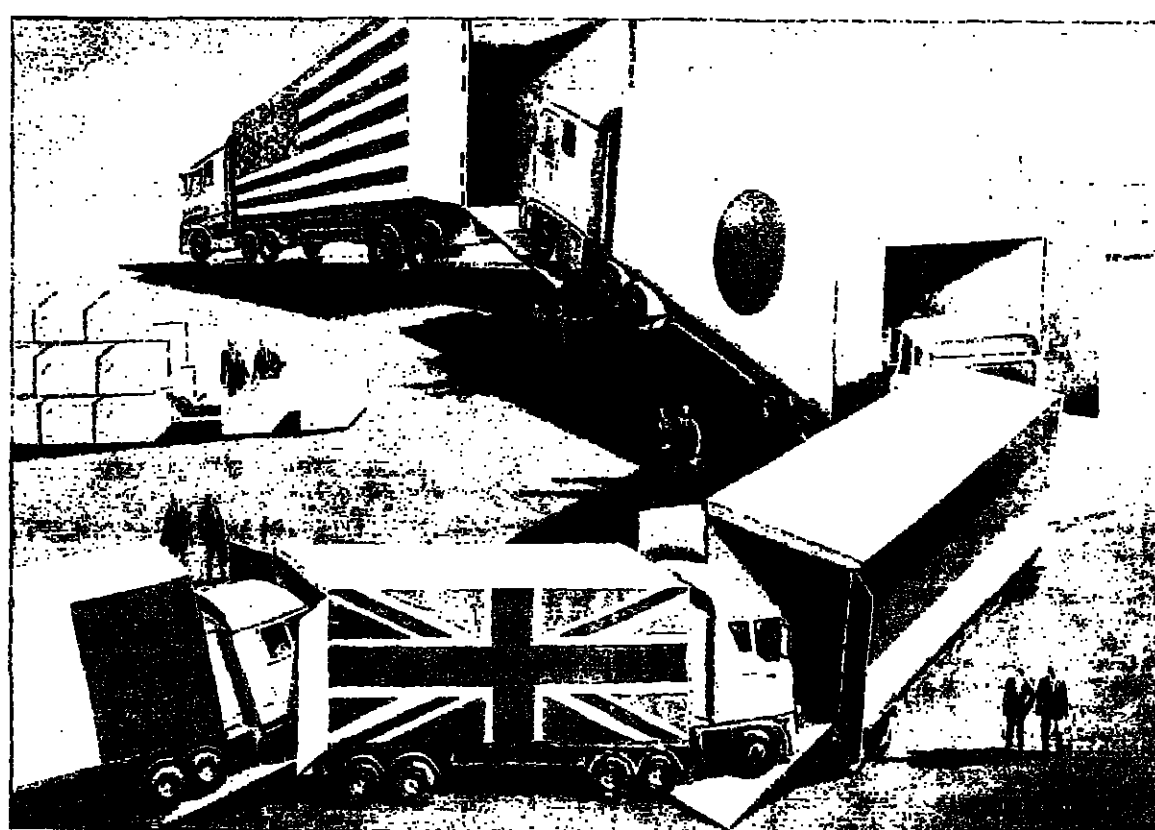
Some of the deals have been obvious. Few expected Rolls-Royce Motor Cars to remain part of an ill-defined UK engineering group even before Vickers's momentous sale decision last November. While some may rightly question the execution and the ultimate splitting of Rolls-Royce and Bentley between BMW and Volkswagen, the deal has at least slotted two more pieces of the puzzle into place.

As FT Auto went to press, South Korea's overblown motor industry was moving towards its end-game. The realignment of Kia Motors and Asia Motors, its commercial vehicles subsidiary, are the inevitable consequence of collapsing domestic and regional demand. The two brands, together once the country's second-biggest vehicles group, were bound to tumble under the weight of diving sales and unmanageable debt.

With SsangYong already absorbed into Daewoo, the latter still discussing unspecified co-operation with General Motors and Samsung's long-term vehicle intentions as yet unclear, South Korea's motor industry will consolidate further. The remaining groups should be bigger and possibly better capitalised, helping them ride out the present and any future economic storms.

Asia's turmoil has turned even some of Japan's once invincible carmakers wobbly. While discussion of mergers and takeovers remains publicly taboo, insiders at Nissan Motor and at Mitsubishi Motor, the two weakest players, may be questioning their companies' long-term strategies.

Both groups have launched ambitious programmes to cut costs, axe debt and spruce up their models to regain competitiveness. Both, however, are battling against the current.



While the trend towards concentration in cars has been driven mainly by macroeconomic events, changes in commercial vehicles are being steered predominantly by one individual. Truckmakers have been transfixed by the ambitions of Ferdinand Piech, the autocratic VW chairman, to break into the heavy commercial vehicles market.

Coming from almost anyone else, such ideas might have been dismissed. But Mr Piech's track record in transforming his group - resulting in the long leash he has now been given by VW's supervisory board - means such ambitions must be taken seriously.

According to Mr Piech, a truck operation is essential to a big carmaker's financial stability by offsetting the regular cyclical swings in the consumer-driven car market with the balancing cycle of truck demand.

Some question that logic. Certain carmakers, notably BMW, have flourished without ever dirtying their hands with commercial vehicles. Privately, a few observers wonder whether Mr Piech's ultimate ambition is to challenge Daimler-Benz: VW's bungled purchase of Roll-Royce Motor Cars has added weight to such scepticism. But others, including it seems, VW's supervisory board, seem willing to give the powerful Mr Piech the benefit of the doubt.

Whatever his motives, Mr Piech's shadow is now lying over the truck industry, and his every pronouncement is being dissected for potential clues as to his intentions.

The fervid speculation has been heightened by the paucity of truckmakers available. Recent months have seen frenzied consolidation: Paccar has continued expanding into Europe by buying Leyland Trucks to complement Daf and Foden. Earlier, Western Star of Canada snapped up ERF. And in vans, LDV has settled its future - at least in the medium term - by selling a strategic stake to Daewoo. And now Henvys and Mayflower of the UK are locked in a battle for control of Dennis, the chassis and utility vehicles specialist.

The most convincing alliance for VW would be with Renault VI. That would give the French group the north European - especially German - distribution it desperately needs. A link with VW would also provide extra engineering talent and, by combining Renault's US Mack Trucks subsidiary with VW's existing Brazilian trucks arm, could even create something of a new global player.

Renault's decision in May to join forces with Iveco in buses and coaches has been seen as indicating a greater openness in Paris to new partnerships. But Renault managers assert they will remain independent in trucks. With the French government still holding more than 40 per cent of Renault's

shares, anything else is probably out of the question politically.

Hence the speculation - regularly fuelled by VW - that other manufacturers are in its sights. The prime focus has been on Scania: a good fit - and may even be available to a rich enough buyer given the stated intention of investor, its majority shareholder, to reduce its exposure to heavy industry.

Volvo is the other, much less realistic possibility. VW may have been put off Scania because of the likely price - estimated by some analysts at about \$5bn. Volvo would cost at least double and would be much more difficult to integrate, because of its cars side. But, as one of the few quoted vehicle groups in Europe without a dominant shareholder, it remains vulnerable to a predator with deep enough pockets to risk a hostile bid.

While unlikely in cars and trucks, hostile transactions have been more evident in components - although not always successfully. May's \$3bn attempt by SPX to acquire Echlin, the US braking and aftermarket parts specialist, foundered after the target agreed to be bought by Dana instead.


Since then, the pace of restructuring among big parts makers has escalated. FT Industries has sold its brake and electrical activities for a combined \$3.6bn; Cooper Industries has divested its two automotive divisions for \$1.9bn; while others have struck smaller deals.

With hundreds of smaller specialists and regional names still independent, restructuring in components has some way to run. But even in cars and trucks, where the choices are far fewer, the game, it seems, is far from over.

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## People

# Merc's man on the long shuttle...

**Haig Simonian catches up with Kurt Lauk, commercial vehicles chief and extraordinary commuter**

"It's punishing. I tell you. You don't know how many times I've been there," says Kurt Lauk, ex-consultant, ex-finance director and currently linchpin of the first big tie between a European and an Asian truckmaker.

Two years into the job of running the commercial vehicles arm of Mercedes-Benz, Mr Lauk's face must be as familiar to commuters between Stuttgart and Tokyo as it is to fellow truckmakers.

For virtually a year Mr Lauk, 52, has been shuttling between Mercedes-Benz's base in Germany and Nissan Diesel's Tokyo HQ to finalise one of the most ambitious deals in truckmaking history.

The prize is control of Nissan Diesel, one of Japan's biggest truckmakers, with a 20 per cent market share. As a first step, the two companies agreed in July to develop a new light truck, primarily for Asia and emerging markets.

Some further agreements should follow before Mercedes-Benz buys the 40 per cent stake in the truckmaker held by Nissan Motor, opening the way to full control.

But commuting to Japan has hardly been Mr Lauk's only pastime in the two years since taking over the running of Daimler-Benz's commercial vehicles side in August 1996.

"We've also done a major acquisition, buying Ford's heavy truck business in the US," he says. "And we've introduced the Actros and

the Atego - two new core products in Europe."

At the Hannover truck show this week Mr Lauk revealed another issue keeping him busy. Mercedes-Benz has announced it will, for the first time, sell commercial vehicles components, such as engines, gearboxes and axles, to competitors.

That is part of a broader strategy by Mr Lauk and Jürgen Schrempf, Daimler-Benz's tough chairman, to improve earnings at one of the German group's biggest, but traditionally least profitable, businesses.

With estimated sales of DM12bn this year, commercial vehicles account for about one-seventh of Daimler-Benz's turnover. Apart from building trucks and vans in Europe, it is the biggest truckmaker in South America and owns Freightliner and the Ford business - now renamed Sterling - in the US.

But running the show has never been easy. In spite of its size, commercial vehicles have been chronically unprofitable, with strong results in some regions invariably eradicated by heavy losses in Europe.

Mr Lauk's appointment to replace Bernd Gottschalk, the popular previous trucks boss, came as a surprise. Not only was he new to trucks, he was also an outsider at Mercedes-Benz. After heading the Boston Consulting Group's Munich office, he moved to become finance director at Audi and then at the big Veba industrial con-



Kurt Lauk: Surprise appointment has been justified

glomerate.

The appointment was justified on the grounds that Mercedes-Benz needed a strategist rather than another engineer or marketing man - it had plenty of those. Two years down the road, the choice appears justified.

In the first half of this year, the trucks operation reported profits of DM87m, compared with a loss last year. "This is just the start," says Mr Lauk.

He has four broad priorities: to make the components operation more transparent; accelerate new product development and introduce far more vehicles; "commonise" practices at the group's far-flung international operations and exploit economies of scale; and pull off the Nissan deal.

All are tall orders, but the challenge in components is probably the biggest of all. Productivity has risen significantly at the group's component operations, based largely in Germany, by chipping away at inflexible working practices and negotiating

painstaking plant-by-plant improvements.

So Mr Lauk makes no suggestion of following the likes of General Motors and Ford, which have split off their components activities into separate subsidiaries pending flotation.

Such a notion would trigger an uproar at Mercedes-Benz's heavily-unionised German plants, where change has come slowly and only through consensus. Labour turmoil would not be desirable at the best of times, even less so in the Daimler-Benz in the throes of taking over Chrysler.

Instead, Mr Lauk speaks of developing economies of scale by seeking new customers outside the group and by persuading every part of Mercedes-Benz's commercial vehicles empire to use more group components.

But the sub-text is clear. If the components side cannot continue improving its productivity to match the most efficient outsiders, its past existence as an integral part of Mercedes-Benz is no guarantee of a similar future.

## Companies

# Ricardo is now looking to broaden its footprint

Billions are spent annually on vehicle development costs. Richard Feast reports on how one big consultancy is positioning itself for further growth

Ricardo, the West Sussex-based consultancy, has completed a major re-engineering task over the past couple of years - on itself. Now Rodney Westhead, the company's chief executive, is seeking a strategic alliance or takeover which will allow recent growth to continue.

The company is ready to move now, but has no time-scale in mind. "In my experience, these things are driven by opportunity," he says.

Following the sale of Cosworth to Volkswagen, through its Audi subsidiary, Ricardo is now the biggest independent powertrain and vehicle engineering business in the UK.

It is best known for its powertrain work, which accounts for 85 per cent of revenues. Now it wants to increase its presence in the general vehicle engineering sector, which involves ride, handling and NVH (noise, vibration and harshness).

"We will continue to bat just as hard as we did in powertrain, but vehicle engineering is the area that we want to push," says Mr Westhead. "These are the cerebral areas where you can build up real intellectual property. We are going to broaden our footprint. We are going to stay wholly automotive, and very wedded to everything that is difficult and clever."

The effect would be to give Ricardo better balance. Mr Westhead explains: "Some £25bn is spent each year on vehicle development costs around the world. Of that, 10 per cent is outsourced by the big OEMs (original equipment manufacturers). Now, 30 per cent of that is going into powertrain, which is where we are already at. You have 35 per cent of it going into styling, trim and aesthetics. It is the lower margin end of the business, and it is not one that we will become involved with. Then you have a 35 per cent spend on vehicle engineering and integration of the whole vehicle."

The strategy, which repre-



Sound quality development at Ricardo's acoustic facility and (inset) chief executive Rodney Westhead

sents a considerable shift for Ricardo, stems in large part from Mr Westhead, the finance director who took over at the end of 1996 after the group parted company with his predecessor, Christopher Ross. A severance settlement was agreed recently.

Under Mr Ross, Ricardo diversified into aerospace and nuclear handling, sectors which produced thin margins but occupied a lot of management time. That in turn diverted attention from increasing problems in North America. The non-automotive businesses have now been sold and problems in the US tackled.

The experience taught Ricardo a lesson. "To try to compete in North America by being the cheapest and quickest person on the block was doomed to failure," Mr Westhead reflects. US operations, having been refocused and consolidated, are now breaking even and are expected to return to profit in the next financial year.

The poor US performance masked solid success in other parts of the business,

which have consistently grown by 20 per cent a year. Despite the US problems, Ricardo's results in the six months to the end of last December allowed the company to pay its first dividend since 1985.

To support future growth Ricardo is investing £11.5m to install another 12 test beds at Shoreham-by-Sea, where it already has 70 on a site next to Britain's oldest licensed airport. "That's significantly higher than most people would spend on test cells," says Clive Hickman, Ricardo's business development director.

The transmission division is moving from Coventry to new premises in Leamington Spa this month to provide for further expansion and to accommodate an additional engine design office based in the Midlands. The group wants to recruit up to 100 graduate and experienced engineers to add to the 1,200 already employed.

"That is a huge number to pull out of the rest of the industry while holding on to all the ones you have already," says Mr Westhead.

"It is at the moment the single biggest constraint on our growth."

Nevertheless, the group expects expansion to continue, in spite of economic crises across Asia. It quit South Korea before problems hit there. "Four to five years ago 20 per cent of our activity was in Korea. Today it is virtually zero."

For the future the emphasis is on Germany, where the majority of Europe's engines are designed. "We do not yet do enough work with the German domestics. They are all on the client list, but we need to develop that presence," says Mr Hickman.

Once established in Germany, the group wants to build its business in France. After that, it hopes the battered economies of Asia will have recovered.

Meanwhile, contract engineering work is growing. OEMs are outsourcing more because of their need to cut internal overheads, the need to shorten lead times, by the market demand for more product diversity, and not least by new automotive legislation.

# Giants aim to be nimble

Haig Simonian looks at Delphi and Visteon, both on the road to flotation

Races are hardly the sort of contests that spring to mind when describing Delphi and Visteon, the two behemoths of the automotive components industry.

As hefty subsidiaries of General Motors and Ford respectively, the world's biggest and second biggest car companies, the components operations occupy similar slots in their industry. Delphi's sales amounted to \$31.4bn last year; Visteon notched up \$17.2bn.

Now both are trying to become nimble as well as big in the run-up to flotation. So far only GM has showed its hand: last month the company announced its intention to float 15 to 20 per cent of Delphi in the first quarter of next year. Most analysts expect much the same for Visteon, the name chosen by Ford for its former Automotive Components Group, split off last September.

With Ford rumoured to be working to a similar timetable as GM, investors in auto stocks could have two monster flotations to choose from next year.

Analysts reckon Delphi's initial tranche of shares could suck up \$2bn of liquidity alone.

The two companies have been trying to stress their independence from their parents by winning more orders from other car and truck makers, and both have been restructuring heavily.

J.T. Battenberg, Delphi's president, wants to cut the proportion of business done with GM's North American operations to 50 per cent of sales by the end of 2002. Visteon's aims are, on the face of it, less ambitious. Charlie Szuluk, president, wants to raise the proportion of business with companies other than Ford to 20 per cent of total turnover. Mr

Szuluk has, moreover, not provided any date for that seemingly modest aim.

However, he claims his benchmark is actually more challenging than Delphi's. Visteon's yardstick is non-Ford business, whereas Mr Battenberg only talks of sales to customers other than GM in North America. That excludes Delphi's substantial, and partly captive, business with GM's European and South American car and truck operations.

Either way, potential investors will at least welcome the greater transparency at both companies as they prepare for the market.

Visteon published its first financial year. Net earnings amounted to \$518m in 1997 - an estimated 53 per cent more than in 1996. The upward trend has continued. Net profits in the first half of this year reached \$430m - 21

per cent more than in the first six months of 1997 thanks to lower costs, higher sales and a better mix of products. Sales climbed by 3 per cent to \$9.1bn in the first half.

Delphi's level of disclosure is still a little fuzziy, in spite of its more immediate flotation plans. The company made profits of \$1.2bn last year, excluding special charges and adjusted to reflect the inclusion of Delco Electronics, the car components business which was formerly part of GM's separate Hughes Electronics subsidiary.

In the first half of this year, however, net income plunged to \$247m from \$721m as output was hit by the prolonged strikes at GM's North America car and truck operations. No wonder Mr Battenberg is so keen to expand Delphi's links with other car companies.

# Question mark over acquisitions

Nikki Tait talks with the head of Tenneco Automotive

It has not been the easiest of summers for Tom Evans, head of Tenneco Automotive, the automotive parts group which is one of the largest suppliers of mufflers, shock absorbers and exhaust system products.

Many analysts expected the company to emerge recently as the buyer of the ITT brakes business, which was up for auction and could have provided a valuable strategic extension to the product line. Instead, Tenneco's parent company - which has been on a long-term drive to rationalise a once-sprawling industrial conglomerate and maximise "shareholder value" - announced that it would look at splitting its two remaining businesses (packaging and automotive parts) into stand-alone entities.

That decision will be made in the autumn. But Mr Evans concedes that it could take Tenneco Automotive out of the current acquisition wave, which is reshaping the automotive parts industry in the US, for several months. He admits that Tenneco did come "very close" on the ITT assets, which were eventually sold to Germany's Continental group for \$1.93bn, and that a different outcome might have occurred had the bigger Tenneco issue not overtaken events.

Nevertheless, he still contends that the strategic goals will be pursued regardless - a policy which has already involved more than two dozen acquisitions over the past four years, from Turkey to Australia. "It would have

been a good extension - but it's not the only opportunity to extend ride control products. There's a whole set of avenues of how we might get there." Talks on other possibilities are ongoing, says Mr Evans.

Will Tenneco Automotive, if it becomes the main constituent of the ongoing Tenneco group, be vulnerable to acquisition itself? Mr Evans admits that this is a question which has surfaced amongst employees, but professes no great concern: "I give them the same answer - keep growing and all your problems are high-class problems." And, he points out, not all aspects of the current consolidation are entirely welcomed by suppliers' customers, who worry that concentration may eventually give the parts companies too

strong a position. "I think the view that bigger is better is not held all the time by the car companies," he says.

Tenneco, meanwhile, is in the bullish camp as it is the North American original equipment market (OEM), predicting that it will remain healthy for the foreseeable future. Mr Evans sees annual production volumes of 15m-plus units, driven partly by the trend toward multi-car families. "I don't see a big change in the next year or so - the economy's good enough. The days of the four-car family are here."

But the aftermarket, he admits, will probably remain a good deal tougher, as cars last longer and become more complex, and OEMs get a "bigger cut" of the service spend.

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## Prospects a matter of geography

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## Focus: Commercial vehicles

Prospects  
a matter of  
geography

Differing fortunes may lead to more global links among truckmakers, says Haig Simonian

Three continents, three different markets. Seldom has the world of commercial vehicles seen such sharply diverging outlooks, depending on where a manufacturer is based.

For those in North America, the world could hardly look brighter: demand for trucks has outpaced even the most optimistic expectations.

Manufacturers of the heaviest Class 8 vehicles say they are sold out, and warn that delivery delays will inevitably lengthen if orders continue at their present levels. Even Karl-Erving Trogen, the congenitally cautious head of Volvo's truck division, admits "the activity level has gone from extremely high to very high".

The sustained US boom has led to bumper earnings. Mack Trucks, Renault's once chronically loss-making subsidiary, has been motoring. Sales and profits at Paccar, now becoming a world manufacturer after buying Dai and Leyland Trucks, reached a record in the first half of this year.

North America's optimism has been broadly reflected in Europe - although the UK has slightly spoiled the party. Truck sales have climbed on the back of recovering economies, spurring profits.

No better sign has come than the reversal of fortunes at Mercedes-Benz, the world's biggest truckmaker. Transformed by its new culture of transparency under group chairman Jürgen Schremp, the commercial vehicles arm reported profits of DM970m in the first half, compared with a DM9m loss last year.

Much of the turnaround came in the once terminally

unprofitable European truck operation. Traditionally, while the US Freightliner subsidiary, South American commercial vehicles and even vans in Europe made money, the European trucks side promptly lost most of it.

The change is, of course, rooted in the Actros and Atego. Mercedes-Benz's two new European workhorses. The two vehicles are much easier and cheaper to build than their predecessors. But the financial recovery has been magnified by the strength of demand in Germany and western Europe as a whole.

If only Asia's truckmakers could say the same. The sorry state of demand in Japan, and, in some cases, even more dire conditions among its neighbours, has prompted talk of a massive shakeout in truckmaking.

So far, speculation has focused on Nissan Diesel and Mitsubishi. In July, the former agreed to work with Mercedes-Benz on developing new light trucks for Asia and emerging markets. Further joint ventures will follow, culminating in the likely purchase by the German group of Nissan Motor's 40 per cent stake in the trucks group, giving it control.

Whether the same will happen with Mitsubishi and Volvo is less clear. The two companies already co-operate in cars and are poised to announce similar plans for their next generation light-medium weight commercial vehicle. Some observers think that will be the precursor to Volvo taking a direct stake. If so, it will be another decisive step along the way to ever more global links between the world's commercial vehicle makers.



Transport has come a long way since Roman times...these days road haulage continues to capture business from rail

## Staying on the right road

Western Europe is building on its strength, says John Griffiths

The economic woes of Russia and the Asia-Pacific region may be inducing ever more alarming wobbles across Europe's stock markets, but so far they show no sign of steering the region's buoyant truck industry off the road.

Last year western Europe absorbed some 170,000 trucks over 16 tonnes and a further 75,000 in the six-to-16 tonnes sector. Reflecting the west's strength in the global truck market, it actually produced more than 313,000, many for markets in the developing world and elsewhere outside of Europe.

Although current world economic turmoil must inject a note of caution, most truckmakers and analysts expect the region's current buoyant sales to continue for the current year and well into 1999, at least.

DAF Trucks president Cor Boan, celebrating the company's 50th birthday, noted that the truck industry has never been so strong as it is now. He said the company's sales in the first half of this year were up 10 per cent on the same period last year. He also noted that the company's sales in the first half of this year were up 10 per cent on the same period last year.

There could be 7.5 per cent growth in western Europe's heavy truck sector this year. German, French, UK and Spanish sales, in particular, have been well above expectations. But if the market itself is proving resilient, the same cannot be said for the industry serving it.

Mr Boan was speaking as president of a company which just a short while earlier had been sold to the US trucks giant, Paccar. Leyland Trucks of the UK has since gone the same way. The small UK truckmaker ERF is now owned by Canadian truckmaker Western Star - itself only about twice ERF's size - and many industry analysts question how long even this enlarged group can remain independent.

Europe's smallest companies, have been swept up into this process of consolidation under remorseless competitive pressures. Conjecture within the industry is now concerned only with when, not if, the next round will come - and who will be the next to be swallowed.

MAN, for one, has been the subject of persistent takeover talk, despite the assertion by Klaus Schubert, chairman of its truck and bus operations, that the medium-sized producer is capable of flourishing through internal growth.

Mr Schubert appears to have sound reasons for that

view: MAN's truck operations are profitable and its sales jumped to 50,000 units last year from 41,000 the previous year. Orders are running at more than 20 per cent above year-ago levels.

Yet Mr Schubert is fairly pragmatic about the future. While denying reports of a possible merger with Renault of France, he is prepared to countenance a deal which would improve economies of scale through shared components and with a partner whose products and geographical strengths were complementary.

Even Volvo, one of Europe's more powerful players, has not been immune from takeover speculation. In July its shares rose sharply after it confirmed it had been holding talks with Volkswagen - Europe's largest carmaker and keen on extending its operations into trucks - over the possible collaboration. Volvo's chief executive, Leif Johansson, acknowledged meeting VW's chairman, Ferdinand Piëch, in Gothenburg, but insisted that outright merger was not on the table.

Nevertheless, VW has made no secret of its interest in the truck market, and had previously held inconclusive talks with Volvo's fellow Swedish truckmaker, Scania. At least some of the increased concern about

Demand is  
boosted by  
economy

There are smiles in the US, where a healthy market has surprised many. Nikki Taft reports

The US commercial vehicle market has revved up sharply during the first part of 1998, to the benefit of most manufacturers. In mid-August, for example, Navistar, the Chicago-based truck manufacturer, forecast industry demand for heavy trucks in North America - the US and Canada - at around 230,000 units in 1998, with demand for medium trucks expected to reach around 127,000.

If those figures prove correct they would compare with sales of 199,600 and 117,400 trucks in the two categories in 1997, gains of almost 17 per cent and 8 per cent respectively.

The pick-up in demand, moreover, has surprised some industry commentators who, at the beginning of 1998, were anticipating a much flatter picture. But it has been attributed partly to the general health of the economy; partly to the drive for "just-in-time" deliveries, which allow manufacturing companies to operate with low, efficient stock levels of parts and the like; and partly to recent problems with rail transport in the US, which badly stalled some shipments and drove customers to look for more reliable alternatives.

Now opinions divide on how long this favourable climate will last. While many analysts warn that general economic conditions and interest rate levels remain critical, a consensus seems to be developing that the current healthy situation should be sustainable for the rest of 1998, at least.

West Coast-based Paccar, for example, recently talked of "excellent demand through the end of the year", noting that back orders were mounting in both the European and North American markets. That said, more cautious observers still suggest that some correction could take place within 12 months.

But already the recent trends have proved hugely beneficial to players in the industry. For Navistar, which for much of the 1990s

and early 1990s was dogged by a legacy of bloated costs, labour problems and pension liabilities, the thing could not have been more beneficial. Critically, the company negotiated a new five-year contract with the United Auto Workers union last year, and on the engine side won a long-term supply agreement from Ford.

But, in an effort to put the business back on the offensive, the company is gearing up to produce a new line of medium-duty trucks in Springfield known as the "next generation truck" - effectively trying to snare back some of the market share gained by rivals, such as Paccar and Freightliner, during Navistar's doldrums.

Earlier this year the company unveiled its new Eagle 9900, and it has stepped up international expansion, notably in Mexico where it has been building a \$167m assembly plant.

Competitors, however, are unlikely to give Navistar a free rein. Paccar, which recently acquired Britain's Leyland Trucks, has also been posting record earnings in recent months, with its Kenworth and Peterbilt lines. Its challenge has more to do with capacity constraints at present - not helped by a strike at the Peterbilt factory in Nashville.

Like Navistar, it is investing in Mexico, expanding the existing Kenworth Mexicana factory and announcing plans for a new distribution centre in San Luis Potosi. Production rates elsewhere have also been stepped up.

Meanwhile, Oregon-based Freightliner - which is owned by Germany's Daimler-Benz - has been expanding fast. The group has been augmented by the purchase of Ford's heavy-duty truck unit last year, and is building trucks under the new Sterling brand at its St Thomas plant in southern Ontario from this summer. The plant will build two models - the A-line, which is a long-distance, diesel-powered truck, and the smaller L-line distribution truck series.

## A state of disrepair

Alexandra Harney reports on the difficulties in Japan

Japan's truck industry has fallen into disrepair. The slump in domestic demand and capital spending has damaged profitability across the sector, and the added assault from a collapse of the south-east Asian market is making matters worse.

It is a common story in corporate Japan. Truckmakers who benefited from the frenzy of building and investment in the late 1980s and early 1990s in both Japan and elsewhere in Asia have seen profits decline sharply in recent years. The companies, in an effort to restore profitability, have moved to restructure their operations. But groups have yet to realise the benefits of those cutbacks as conditions in the domestic and overseas markets continue to deteriorate.

The decline in the truck market is even more striking than that of the car industry. Truck sales fell 26 per cent year-on-year in July, the last month for which figures are available, to 107,210 units. In the same month, passenger car sales slipped only 0.5 per cent against the previous year.

As a result, truck groups have made more significant production cutbacks. They cut production by 17.7 per

cent in the first six months of this year, while car companies reduced their output by 8.5 per cent, according to the Japan Automobile Manufacturers' Association.

Hino Motors, which holds the biggest share of the domestic market, cut its production levels 39.5 per cent in the first half of this year, compared with the corresponding period last year. Nissan Diesel lowered its output by 33.3 per cent. But despite their efforts to lower production volumes, truck manufacturers still recorded dismal financial performances last year. At Hino, net earnings plunged 77 per cent, from ¥7.24bn to ¥1.65bn. Sales slipped 7 per cent, from ¥632.72bn to ¥589.21bn in the year to last March. Nissan Diesel posted a ¥1.3bn loss compared with earnings of ¥3.4bn the previous year. Sales were down 12 per cent to ¥298.7bn. And Mitsubishi Motors, the third largest car and truck group, recorded losses of just over ¥102bn, on sales up 1.7 per cent at ¥3,735bn.

As a result, truckmakers have accumulated huge inventories. Most truck groups have five to six months of inventory, according to estimates by Warburg Dillon Read.

As profits have ground to a halt, truckmakers have turned to unusual means to improve performance. Bino has plans to lay off 200 workers, starting this month, and Nissan Diesel has announced it would also consider encouraging its employees to take extended leave. Mitsubishi has said it would eliminate 2,000 jobs by next year. These moves are highly unusual in Japan, where companies have traditionally retained surplus workers even in an economic downturn.

Other groups have moved to keep pace with global consolidation in the industry by teaming up with manufacturers overseas. Nissan Diesel, for example, has agreed to develop a light truck line in co-operation with Daimler-Benz, the German group, in a link that may be the precursor to full control by the Germans.

However, tie-ups may not be much relief for struggling truckmakers. Analysts warn that truck sales could slip as low as 90,000 units this year, compared with 1.7bn two years ago. This would be the largest drop in 30 years, according to Peter Boardman, industry analyst at Warburg Dillon Read in Tokyo.

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## Focus: Commercial vehicles

# Consolidation is just the ticket

Haig Simonian looks at the reasoning behind the merger of Renault and Iveco bus and coach units

When Renault and Iveco announced the surprise merger of their bus and coach divisions on May 6, they confidently expected glowing headlines praising their bold confrontation of chronic overcapacity in Europe and of opportunities in fast-growing markets beyond.

Instead, the headlines were dominated by another automotive alliance - Daimler-Benz's takeover of Chrysler. Rather than encomiums to Franco-Italian entente, the deal was lucky to make the page that day.

The timing was doubly ironic. The Renault-Iveco venture was, in large part, a reaction to Daimler-Benz's consolidation as the world's biggest maker of buses and coaches, and, after recent takeovers, Volvo's emergence as the uncontested number two.

"There was a widening gap between the two leaders and the rest," admits Elías Pascual, deputy director general of Renault VI, Renault's commercial vehicles arm, and the chief executive designate of the new joint venture. "It was becoming increasingly difficult to keep pace."

Mr Pascual, a Renault veteran who once ran the group's Mack Trucks subsidiary in the US, agrees joining forces with Fiat's Iveco commercial vehicles arm was largely defensive. "The pace of change has been accelerating in recent years. We had two options: staying independent, knowing we would probably have to narrow our product range to finance internationalisation, or finding a partner."

Secretly, the search had been going on for some time. Renault and Iveco started talking almost three years ago. Progress, however, was fitful. The "real" negotiations only began about 15 months ago. The pace, according to some observers, may well have been accelerated by Daimler-Benz's turn-around after merging its bus activities with Setra to form EvoBus, and by Volvo's relentless acquisitions.

Mr Pascual identifies three factors obliging Europe's bus and coach builders to consolidate. "For decades there was just one type of vehicle. Then, around the 1970s, you could talk of three: urban buses; intercity buses; and touring coaches. By 2000, however, there will be at least seven distinct types. Leading manufacturers will have to offer most variants to stay ahead."

● **Product proliferation.** "For decades there was just one type of vehicle. Then, around the 1970s, you could talk of three: urban buses; intercity buses; and touring coaches. By 2000, however, there will be at least seven distinct types. Leading manufacturers will have to offer most variants to stay ahead."

● **Static European demand.** Annual demand in Europe for buses and coaches has been around 200,000 units for years. "There are no signs of that changing." By contrast, sales outside Europe, notably to the rapidly growing "mega-cities" of South America and Asia, should soar. "The world market should reach about 170,000 units a year from 1998. But the growth will come outside Europe. Manufacturers have to internationalise."

● **More demanding customers.** The emphasis on better prices and performance is most evident in Europe, where privatisation in urban transport has created a new breed of commercially-minded operators, such as the UK's Stagecoach. Such companies are much shrewder than their municipally-owned predecessors. Their

size means they can place massive orders, but they want standardised products and lower prices in return. Mr Pascual says these three factors are reshaping the industry. "The upshot is that eight main manufacturers for 20,000 to 22,000 heavy bus orders a year in Europe is too many." But rather than seeing the Renault-Iveco joint venture as bowing to the inevitable, he argues it could shake up its rivals. With annual sales of FFr6bn, comprising almost 4,500 buses and coaches along with 1,500 minibuses, it will leapfrog Volvo as Europe's number two.

"We will be market leaders in France, Italy, Spain and the Czech Republic (through Renault's local Karosa subsidiary). Although the company remains weak in Germany and Scandinavia, gaining weight there will be a top priority."

Expanding in growing markets outside Europe is Mr Pascual's other ambition. Mr Pascual argues the decision by Iveco and Renault to give the joint venture FFr2bn of equity and not saddle it with large debts demonstrated their commitment to growth. "Together we'll have the potential to finance expansion worldwide."

Before that can happen, however, the company will have to flesh out its structure. A first step will come with the naming of the 10 top executives beneath Mr Pascual and Enrico Valentini, the chief operating officer. Mr Valentini was previously general manager of Iveco's bus division.

Obtaining European Union approval for the deal will be another milestone, probably

around year-end. If it comes sooner, Mr Pascual reckons the new entity, which has still to be named, could be established around November. "Otherwise it will be January 1 1999 at the latest," he says.

Many essential foundations were already laid during the negotiating phase between Renault and Iveco. One reason why the talks took so long was to value both companies' bus activities and eliminate any links with their truck sides. By the time the deal was done the bus businesses were financially and legally separate. Unusually, for the bus business, engineering and manufacturing were also independent of trucks, making the realignment easier, he notes.

Although Renault's bus sales of FFr3.8bn a year were appreciably larger than Iveco's FFr2.4bn, the two parents will hold equal stakes, with Iveco making a cash adjustment to even things out. Yet in spite of the apparent separation of interests, the new venture will retain strong links with the parent companies. Buses and trucks may look different, but they share many crucial parts, such as engines and suspensions.

Could such dependency constrain the venture in the long term? "We'll be able to buy parts from the parent companies, just as from independent suppliers," says Mr Pascual. However, he admits there will be some sort of "priority principle" for Renault and Iveco - suggesting the new venture may have its hands tied after all. The new company may also be constrained by the severe product duplication between its two founders.

Mr Pascual argues duplication is not a problem and that plant closures are unnecessary. He says the question of duplication is irrelevant because the joint venture will continue as a full range producer using all its brands. And buses must be built close to customers to maximise flexibility.



Renault and Iveco's merger of bus and coach units is unlikely to lead to closures, the companies say

meaning factories cannot be closed. He admits the company will in time adopt a "platform strategy" to cut product development and manufacturing costs by developing common engineering structures for its vehicles. These will then be differentiated between the brands through distinct body styles.

In the interim, Mr Pascual believes the new venture can keep its factories busy. Italian bus orders are thriving after a famine in the early 1990s on the back of a three-year state-sponsored replacement scheme. Later, new sales opportunities will arise from its efforts to target markets outside Europe.

Such rosy predictions may have been the only way to secure approval from sceptical trade unions and politicians. While plausible, it is also rather optimistic. Shareholders in Renault and Fiat should probably be pleased they have the experienced Mr Pascual in the driver's seat.

For Renaults to reach Mr Bogus's target, he says six conditions must be met: greater development of agriculture; continuing foreign investment in manufacturing; privatisation programme; growth in the construction industry; new forms of credit, especially operational leasing; and economic growth of about 4 per cent a year.

Some, if not most, of those conditions are being met. But it is the last, and most important, that is currently proving elusive. This year the economy will grow about 2 per cent. For as long as Brazil's economy remains vulnerable to shocks from across the globe, truck-makers can expect a rough ride.

**Brazil commercial vehicle sales**

	Light commercial <sup>1</sup>	Light <sup>2</sup>	Medium <sup>3</sup>	Heavy <sup>4</sup>
Aug 1997	22,298	1,482	1,891	1,723
Sep	20,642	1,287	2,228	1,287
Oct	20,444	1,546	2,424	1,866
Nov	16,110	882	1,905	1,303
Dec	12,857	693	923	1,036
Jan 1998	16,987	1,153	1,495	1,188
Feb	16,322	972	1,483	1,068
Mar	25,047	1,344	2,278	1,751
Apr	24,656	1,327	2,121	1,289
May	24,427	1,275	2,344	1,638
Jun	21,537	1,257	2,191	1,522
July	20,837	1,297	2,063	1,402

1. gross vehicle weight up to 3.5 tonnes  
2. gross cargo weight 11 tonnes to 30 tonnes  
3. gross cargo weight 31 tonnes to 40 tonnes  
4. gross cargo weight over 40 tonnes  
Source: Autodata (Brazilian vehicle manufacturer association)

"There is some uncertainty because of October's general elections, but the biggest factor is that there is a lot of competition, a lot of trucks around," he says.

Competition is set to increase, with new entrants to the market and product launches from existing manufacturers.

Fiat and Iveco are spending \$240m on a plant in Brazil to produce Iveco Daily light trucks and Fiat Ducato vans. Production will begin next year with capacity of 30,000 vehicles a year. Iveco already makes heavy trucks at its factory in Argentina; both plants will sell to the Mercosur countries and other Latin American markets.

Mr Bogus at Mercedes-Benz argues there is still enormous room for growth. Brazil's truck fleet, of about 1m units, has an average age of 14 years, compared with four or five years in Europe and the US. To bring the average age down to six or seven years, he says, would require a renewal rate of 70,000 to 80,000 trucks a year for five years - the current renewal rate is 35,000 to 40,000 a year from a total market of about 55,000.

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## CASE STUDY MANAS

# The long road to success has had its bumps

Truckmakers eyeing up opportunities in fast growing "new" markets may care to note MAN's experiences in Turkey's roller-coaster commercial vehicles sector before taking the plunge.

MANAS, the German group's big Turkish subsidiary, is being groomed by its parent as a regional production base for heavy trucks and buses for much of the former Soviet Union, the Middle East and south-east Europe as well as the big domestic market.

"Investing in Turkey is strategic for us," explains Klaus Schubert, MAN's chairman. After receiving DM110m of new investment to raise MAN's stake and modernise its Turkish facilities, MANAS has the capacity to build at least 2,500 vehicles a year.

With its order book brimming to the end of the year, MANAS built more than 1,200 trucks and 300 buses and coaches in 1997 - almost 14 per cent up on the previous year. That gave it leadership in tractors (units for hauling articulated vehicles), with about 20 per cent of the local market, 4 per cent of light trucks of more than 12 tonnes and just over 10 per cent of the bus market.

Mr Schubert is confident MANAS, now the group's fifth manufacturing operation, can easily expand. "We want to increase our market share in all sectors," he says.

He points to Turkey's size, with 62m people, and low labour costs to justify his confidence. As a big country with an underdeveloped rail network, roads are crucial for transporting people and goods. About 90 per cent of all freight and 95 per cent of long-distance passenger travel is by road, he notes.

Wages, meanwhile, are 12 to 15 per cent of corresponding levels in Germany. That means that while capital-intensive components, such as engines and axles, will be imported from the group's main German plants, more labour-intensive work can be concentrated in Turkey. In the case of buses, which can require up to 1,000 hours of labour - representing about 40 per cent of total manufacturing costs - the advantages are obvious.

MANAS and its Turkish suppliers are also being groomed as future sources of components and sub-assemblies for MAN's lead German plants. About 50 per cent of the half-share need for axles in Germany already come from Turkey, says Mr Schubert. Bus and coach seats are another area where local suppliers may

have an edge, he believes. But MAN chairmen have not always been so sanguine about their Turkish operations. MAN's original investment in truck assembly with a local partner, to which bus and even engine building were later added, turned sour because of see-sawing government economic policies in the 1980s.

As in many other big, but underdeveloped, commercial vehicle markets, one of the reasons why foreign truckmakers invested was because high local duties prevented imports of new and used vehicles.

That changed almost overnight when new government policies two decades later sharply reduced the duties on secondhand vehicles, and hauliers brought in large numbers of cheap trucks from abroad.

The collapse in sales of new vehicles prompted MAN to cancel further investments and, gradually, to dilute its stake in its local joint venture. Only in 1994 did the company reconsider.

Together with IS Bank, its partner at the time, MAN invested in a new Ankara plant. By December 1996 the German parent had bought out IS Bank's majority stake, and the following year it acquired most of the remaining minorities, giving it 83 per cent of MANAS. At the same time, it converted and enlarged the former Ankara engine facility into a bus plant to meet a forecast explosion in vehicle orders from municipalities and coach companies.

Even after all that it is not plain sailing. While more components are being sourced locally, and even sent to Germany, Mr Schubert warns such deliveries have not been fault-free. "We have to do very elaborate checks to ensure what is written on a box corresponds to what is inside."

Competition has also been tough from established international commercial vehicle manufacturers as well as Asian upstarts now looking desperately for sales. Hyundai recently has won a contract for 800 buses for Istanbul, "for a price which was unbelievable," he says.

Nevertheless, MANAS has kept its end up. Mr Schubert is particularly pleased with a recent bus order from Bosnia and for more than 300 vehicles for Kazakhstan. The bus business abroad, it seems, is motoring, even if it is still just stop-start at home.

Haig Simonian

## Growth in road freight proves timely

Manufacturers in Brazil were braced for a tough time, but it hasn't been all bad, says Jonathan Wheatley

When the Brazilian government doubled interest rates last October in response to the Asian crisis, it boosted confidence that the country's economy would ride out the storm but dealt a severe blow to the commercial vehicle market.

With the promise that interest rates would fall as soon as possible, many purchases, which depend almost entirely on credit, were postponed. Manufacturers prepared themselves to sit out a tough period, expecting sales to remain depressed well into the first half of 1998.

"As it turned out things haven't been as hard as we expected," says Roberto Bogus, sales director for trucks and buses at Mercedes-Benz in Sao Paulo.

The Brazilian truck market grew by about 4.5 per cent in the first seven months compared with 1997 - although 1997 was itself a tough year, and followed an even tougher one.

Mr Bogus credits this year's market to two factors: a better-than-expected harvest, and the steady relocation of manufacturing indus-

try away from the industrial centres of the south-east, either to smaller interior towns or to the low-tax and cheap labour environment of Brazil's underdeveloped north-east.

The result has been growth in traffic of raw materials and finished goods between new manufacturing centres and traditional consumer markets. Because Brazil's rail and maritime transport systems remain drastically underdeveloped, most of the new freight is carried by truck.

In addition, interest rates - as promised - have fallen, and are now below last October's levels.

Despite such positive developments for the industry, immediate prospects remain gloomy. Manufacturers say they expect at best to repeat last year's sales.

Mercedes-Benz plans to send workers home for nine days during the last four months of the year. General Motors's trucks division is granting extra holidays in August and September. Scania Latin America has cut 300 jobs this year, of

which 95 per cent were Brazilian production staff.

Scania's core market - heavy trucks - is the one that has suffered most. Jorma Halonen, who took over last month as president of Scania Latin America, says early signs of a recovery this year proved false.

"The situation has changed during the half, and we're now expecting the market to shrink by between 5 and 10 per cent from 1997," he says. "If all goes well next year we hope for a return to 1997 levels."

Scania Latin America had its own difficulties in the first half with the launch of its 4-series trucks, when some suppliers proved unable to deliver the required quantities of parts. Its market share in April fell to 18 per cent, but the company says it has since recovered to its customary level of about 33 per cent.

Although the disruption of the 4-series launch is mostly in the past - introduction of 4-series buses will be completed in the second half - Mr Halonen remains cautious about the short-term.

## Bad old ways still survive

Ryan James Tutak reports on problems in central and eastern Europe

Even astute observers need a remarkable microscope to detect any vibrancy in central and east Europe's bus and truck industries. It is much easier to spot terminal illness.

Since 1990 production of commercial vehicles has fallen 70 per cent in Belarus, 89 per cent in the Czech Republic, 96 per cent in Hungary, 91 per cent in Romania, 75 per cent in Russia, 93 per cent in Ukraine, and 96 per cent in Yugoslavia. Manufacturing has nearly disappeared in Bulgaria, Latvia and Slovenia.

Overall, output has fallen 71 per cent from 892,553 units in 1990 to 255,917 units in 1997. The only countries in the region to post growth are Poland (17 per cent) and Slovakia (38 per cent).

The problems need no expertise to diagnose: outdated products, oversized factories, overstuffed workforce - and managers subordinating company interests to their own.

Foreign investors expected to find such troubles in the

immediate aftermath of communism, but that was nine years ago. During the Cold War these companies typically relied on guaranteed massive contracts from big farms and militaries, and this dependency apparently has led to debilitating addiction. Such orders started fading as the Berlin Wall started falling, but few bus and truckmakers have yet to rebuild their businesses.

There was evidence of this recently when Pavel Lezhankin, general director of AvtoUAZ, Russia's third-largest truckmaker - whose output has fallen nearly 50 per cent over seven years - told an automotive conference in Vienna: "Our enterprise can be restructured, but we don't want to do that."

The company entertained interest from Mercedes-Benz a few years ago, but the German automaker eventually walked away, disillusioned.

Few big producers of commercial vehicles in the region have been privatised

successfully, though many have been sold unwisely to company managers and local interests - rich in political connections, poor in capital, ideas and the technology desperately needed to revive operations.

The state of the bus and truck industries in former communist Europe could be different, as the region's car industry attests.

Foreign manufacturers of heavy commercial vehicles have not totally ignored the region. Scania and Volvo build buses and trucks in Poland, while Mercedes-Benz builds buses and trucks in Ukraine and UralAZ in Russia.

Through the dark clouds, however, two companies shine - Hungary's Raba and Russia's GAZ.

GAZ is the region's biggest truckmaker (and the third-biggest carmaker in the former Soviet Union). It is in the best shape of any com-

mercial vehicle producer in the old East bloc, even though its output has fallen 70 per cent from 296,000 units in 1990 to 87,482 in 1997 (the biggest decline of any automaker in the region).

The reason is simple: the company has scrapped products it could not sell, while innovating models that it can - most notably a family of light trucks named GAZelle, introduced in 1994. But GAZ soon will face stiff competition, led by Ford, which has plans to open a plant in Russia by 2000.

Raba, privatised last year and easily the strongest player in the commercial vehicle sector in the old East bloc, already has established a significant global presence, largely by abandoning truck production and focusing on axle and engine manufacturing. The Hungarian company has posted profits in seven consecutive years, earning more than 70 per cent of its sales from mature markets in Asia, North America and western Europe.

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1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

1. The first step is to identify the problem.
 2. The second step is to define the problem.
 3. The third step is to analyze the problem.
 4. The fourth step is to develop a solution.
 5. The fifth step is to implement the solution.
 6. The sixth step is to evaluate the solution.
 7. The seventh step is to monitor the solution.
 8. The eighth step is to maintain the solution.
 9. The ninth step is to improve the solution.
 10. The tenth step is to document the solution.

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

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 131. *Chlorophyll azaa* (Chl *aza*  
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 133. *Chlor*

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## Focus: Turmoil in Asia

# Dark clouds refuse to shift

There are few, if any, signs of recovery in the region's markets, writes Haig Simonian

The turmoil in Asia's car and truck markets has already outlasted the least pessimistic expectations.

Prospects for vehicle sales in once-booming countries, such as Malaysia, Indonesia and Thailand, remain depressed. Even in Japan, the region's biggest car market, the prognosis is still chronic malaise rather than gradual recovery.

The decline in sales has had predictable effects. Temporary plant shutdowns

have become longer-run closures. In extremes, whole factories have been shut down as their owners have given up hope of any significant recovery in the foreseeable future.

But the crisis in the region - which has, so far, excluded the big Chinese and Indian markets - has claimed no really big corporate victims - yet. South Korea's debt-ridden SaengYoung Motors has been absorbed into Daewoo, but otherwise the

region's car and truck makers have tried to battle on, in spite of steep falls in domestic sales, restless workers and mixed fortunes with exports.

That may not last. As FT Auto went to press, creditor banks of South Korea's heavily-indebted Kia Motors group and its Asia Motors commercial vehicles subsidiary were meeting to auction the company.

A victory by Ford and Mazda, the Japanese car-

maker controlled by the US group, would signal a profound challenge to Hyundai, Daewoo and, most recently, Samsung, three of Korea's biggest chaebols.

Even Daewoo's own motor industry wings may soon be clipped if its long-running talks on unspecified co-operation with General Motors lead to some relinquishing of management control.

The outlook is little better in Malaysia, where favoura-

ble tax and tariff treatment has done nothing to protect the "national" carmakers Proton and Perodua from a collapsing domestic market. Nor has either company managed to exploit the massive competitive advantages gained by a crumbling currency to boost exports significantly.

As FT writers show in the following articles, the symptoms in the region's local markets are looking worryingly persistent.

## Restructuring of industry is likely

Japanese manufacturers find the going tough as they seek relief overseas, says Paul Abrahams

Japan's automotive industry has spent the first half of 1998 in reverse. With the domestic economy in recession and consumer confidence in tatters, car sales in Japan have been in free-fall.

There is no relief through exports. The US economy may remain buoyant, but the market there is highly competitive. In Asia the economic downturn has devastated demand for new cars.

The crisis at home and abroad looks set to trigger an industry-wide restructuring, with many of Japan's 11 automotive constructors being absorbed by their local rivals or international competitors.

That Japan's automotive industry is in trouble should be no surprise. The economy is enduring its worst recession in 50 years. Even the government, usually in a state of denial, has conceded there is unlikely to be any real growth in gross domestic product this fiscal year.

Rising unemployment, falling take-home pay and higher taxation have combined to dent consumer confidence.

That collapse in consumer confidence is reflected in new car registrations which for the first seven months of 1998 fell 15.3 per cent on year. No real upturn is expected in the second half, either.

Hiroshi Yoshino, president of Honda, admitted recently that domestic sales of all vehicles, industry-wide, were only likely to reach 6.2m this year, compared with 6.7m in 1997.

Even those sales that are being closed off depend heavily on aggressive discounting. Assemblers without a good line-up of new models have seen their margins suffer.

Brokers Morgan Stanley Dean Witter estimate that 76 per cent of Toyota's sales were generated by what it terms as "laggard models".

For Honda the figure was just 50 per cent, while Mazda, with its successful Demio and Capella, achieved a rate of 41 per cent. However, Shochiro Toyota, Toyota's chairman, insists his group's new models are selling well.

Beset by the collapse in

domestic demand, Japanese automotive makers have sought to make up by pushing sales overseas. Goldman Sachs estimates that exports could reach 4.3m units this year, a rise of 2 per cent and equivalent to nearly 50 per cent of total domestic production.

Such an increase would be despite a collapse in Asian demand. The US brokers reckon exports to the region will fall year on year by about 35 per cent to just 346,000 units in the 12 months to March 1999. As for Thailand, south-east Asia's largest market, sales during the first six months of 1998 tumbled more than 70 per cent on year.

Malaysia was down 64 per cent, the Philippines 50 per cent, and Indonesia 82 per cent.

Mazda, one of the weakest Japanese manufacturers, this summer closed one of its assembly plants in Thailand as a result.

Most of the gain in total exports will come through a 7 per cent increase in shipments to Europe.

Goldman Sachs is also predicting a 2.6 per cent decline in exports from Japan to the US. This would partly be because of the build up of production capacity by Japanese manufacturers in the region. Another factor is Nissan's North American business, which has incurred dreadful losses caused by excessive discounting and poor residual values on leased vehicles.

In contrast, Honda and Toyota are expected to report record results in the US this year - largely as a result of the continuing depreciation of the yen against the US currency.

Despite the rise in exports, manufacturers' inventories remain high, especially in the domestic dealer network.

Production is being scaled back sharply. Hiroshi Okuda, Toyota's president, said he hoped Japanese production would reach 10m units this year. However, many observers are predicting lower output. If production does fall below 10m it would be the lowest since 1979.

Despite potential windfalls from the yen's weakness, this year's financial results are unlikely to make attrac-

tive reading. Morgan Stanley Dean Witter predicts that even Toyota's net earnings will fall this fiscal year, while Honda's will be virtually static. Mitsubishi Motors is expected to post a net loss for the second time in two years, while Nissan's results will be negative for the sixth time in seven years.

Only Mazda is likely to show a significant improvement, posting its first net profit in five years.

The consistent lack of profitability and return on capital is beginning to convince some Japanese manufacturers that the current crisis is caused less by a cyclical downturn than a significant structural problem.

True, the crisis has not hit all companies equally. There has been a bifurcation. Honda and Toyota, buoyed by their huge financial strength, have been able to invest heavily in new products which in turn have allowed them to weather the storm. In contrast, Mazda, Mitsubishi Motors and Nissan have been struggling, and their long-term future as independent companies must be in doubt.

The crisis is probably most acute at Nissan, which is burdened with huge debts and is part of the financially weak Fuyo keiretsu business grouping. The automotive company is currently negotiating with Daimler-Benz of Germany to sell a significant stake in Nissan Diesel, the country's fourth largest truckmaker. However, the scale of the Nissan Diesel's liabilities remains a significant barrier to the deal.

Mazda has the backing of Ford of the US, which owns 33.3 per cent and may eventually increase its stake, while Mitsubishi Motors is supported by the Mitsubishi keiretsu. However, the group has historic links with Chrysler, and some analysts believe the two may conclude some sort of deal.

In the meantime, the weaker manufacturers are busy cutting costs. Mazda, for example, has made annual savings of \$40m at the North American business alone. Nissan is aiming for annual savings of \$400m a year by March 2001. But although such moves may appear impressive, without an economic upturn in their domestic market, they may not be enough to rescue the Japanese motor industry's weaker brethren.

## Buying spree is a thing of the past

It used to be a sellers' market. Now Malaysian buyers are in the driving seat, writes Sheila McNulty

Time was when used Malaysian-made cars were more expensive than new ones. That was before the regional crisis, when demand for Malaysia's best-known car, the Proton, was so high it often took six months to obtain one. People paid more for a used one just to get on the road.

But the buying spree that sent the financial system into the regional crisis, with domestic loans at 170 per cent of gross domestic product - the highest ratio in south-east Asia - is over. And as the economy moves into recession the Malaysian car market is grinding to a halt.

The Malaysian Motor Traders' Association predicts sales will plunge 60 per cent this year, to 160,000 from 404,537 last year. They fell 88.1 per cent in the first half. Malaysia is to open its protected automobile market to foreign competition in 2003. Stiff import tariffs, which run as high as 350 per cent, now put foreign competition out of reach for most Malaysians. So, up until the crisis, Malaysian carmakers Proton and the lesser-known Perodua did not have to worry about building a competitive product and marketing it to the people.

For years, potential buyers were talked down to, even snubbed, by sales staff. Malaysians joked about how some cars were positioned so low to the ground that even the smallest bump rattled them. And they were right. One of Proton's models resembled a generations-old Mitsubishi. But the price was right - Perodua sold in the M\$20,000 to M\$35,000 range and Protons started at around M\$40,000 - and the carmakers could not produce them fast enough. It was a sellers' market and, therefore, up to buyers to find a way to get placed high on waiting lists.

New prices of new cars are being slashed so much that the used car market is fast disappearing. Those selling used vehicles must ask for less than they ever imagined, and still they cannot unload them. They fondly recall when used cars actually appreciated in the value with the passing years, and cling to their vehicles in the hope that that will once more be the case. But analysts consider that unlikely.

Financial institutions, which once lent up to 90 per cent of the purchase price, are being prudent. They worry the person they lend to today might be out of work tomorrow, and have virtually stopped extending

credit. Economists predict almost one-third of all loans will be unpaid as the crisis advances.

EON, which distributes Proton cars, reported a 5.6 per cent fall in net profit to M\$429.2m for the year to end-December. The regional crisis pushed its used car sales down 84 per cent to 2,930 units, and at that time the problems were only just taking hold of the country.

Proton's net profit plunged 40.6 per cent to M\$440.6m in the year to end-March. And Perodua, which is private and, therefore, does not report its earnings, said that as of April its sales had dropped to 10,234 units, compared with 68,731 in all of 1997.

These days sales staff at both new and used car showrooms not only take the uncertainty step of rising from their chairs to greet customers, but offer promotions. The take-it-or-leave-it mentality that once deterred buyers from choosing their own car colour or accessories has gone.

Perodua is offering stripped-down models without even a glovebox or dashboard tray for around M\$19,000. Proton is offering models with superior export specifications for domestic prices. And both carmakers are travelling the world in search of new markets in the hope of boosting sales abroad. Neither has made significant progress, however, against the established competition from Europe, Japan and the US.

Analysts say the difficulties Malaysian carmakers have competing abroad will surface in the domestic market when the tariffs disappear if the companies do not use the few years they have left to make their vehicles more competitive and learn how to sell them.

"I don't know whether, come the year 2003, we will be ready to open the market," said Mohd Saleh Sulung, Proton's chairman, in an interview earlier this year. "The motor companies in this country had it so good... suddenly the volume dropped." But Mr Mohd Saleh said he could not afford to take any chances that the government would postpone liberalisation. "We need to re-activate demand."

The government is trying to help. It recently reversed measures aimed at slowing car leasing, which it had imposed as fears grew that banks were becoming over-exposed. Now it says buyers can obtain up to 85 per cent financing, instead of just 70 per cent, repayable over seven years instead of five.



Seeking buyers: A batch of Proton cars leaves Kuala Lumpur port for export markets

Photo: AP

## Weakness exposed

John Burton reports on Korea's protected market

The South Korean car industry, the world's fifth largest, is confronting its worst crisis after achieving rapid growth since the 1960s.

The nation's severe recession exposed the weaknesses of the industry, including excess production capacity and heavy debts, that are leading to consolidation among its five carmakers.

Kia Motors, the third largest carmaker, is being sold in an international auction after it went bankrupt last year. The sale could change the fate of the industry.

If US carmaker Ford Motors buys Kia it would open one of the world's most protected car markets to direct foreign competition. If Kia is instead bought by one of the three remaining domestic producers - Hyundai, Daewoo or Samsung - it would change the balance of power within the industry.

A takeover of Kia by Hyundai would strengthen its position as the nation's largest carmaker, while probably forcing Samsung, which only began car production this year, to abandon the business.

Analysts believe that Korea can support only two or three carmakers, since a recovery in domestic car sales is not expected for another three to five years.

Hyundai and Daewoo are rated as having the best chances of survival. Daewoo secured its position as the second-biggest carmaker last December when it bought SaengYoung Motors, which was on the brink of bankruptcy. The SaengYoung takeover expanded Daewoo's range of commercial vehicles and luxury cars to match that of Hyundai.

Even for Hyundai and Daewoo, the next few years will be tough. Standard & Poor's, the US rating agency, recently downgraded the long-term credit of Hyundai

Motors and the parent company of Daewoo Motor to B, five notches below investment grade, because of large debts.

The problems in the car industry became evident last year when domestic sales fell for the first time by 8 per cent, even as exports rose by 9 per cent. This was an alarming development for an industry that enjoyed annual domestic sales growth of 40 per cent less than a decade ago.

The situation has deteriorated this year as consumers cut spending in response to the economic crisis. Domestic sales have collapsed in the first half, down 52 per cent from a year ago to 350,000 vehicles. Exports also fell by 2 per cent to 600,000 vehicles, despite a weaker Korean currency.

Carmakers have drastically cut production by 36 per cent to 920,000 vehicles in the first half, with plant capacity operating at only 40 per cent. Korea may produce at most 2.1m cars this year against 2.8m in 1997, a particularly troubling statistic given that Korea's total car production capacity is nearly 5m vehicles annually.

Second-half prospects do not look promising. Exports are expected to suffer further because of economic troubles in south-east Asia, one of Korea's main overseas markets, and a continued weakening of the Japanese yen. Domestic sales are predicted to remain sluggish.

Korean carmakers have responded to the crisis by trying to restructure, including shedding workers. But this has brought new problems by triggering strikes at the three biggest carmakers. Hyundai suffered from a month-long industrial action that caused its exports to plunge by 68 per cent in July because it could not meet overseas orders.

Another potential threat is the lifting of an import ban on Japanese cars from next year as well as the possible entry of Ford into the local market via Kia. This will pose a challenge to Korean carmakers, whose productivity rates are lower than those of US or Japanese carmakers.

Moreover, the increased competition will come as the Korean car market reaches the saturation point, with one car registered for every 4.7 persons as of last year. The nation's clogged motorway infrastructure will not allow much further growth in sales volume.

## Capacity rises, demand slides

Multinationals must adapt to new Thai environment, writes Ted Bardacke

Thailand, once a microcosm of south-east Asia's booming auto industry, is now both a shining example of overcapacity throughout the region and a laboratory for multinational automakers trying to deal with the rapidly-changing market environment.

The collapse of Thailand's vehicle market has been dramatic. From 589,126 vehicles sold in 1996, then the largest market in south-east Asia, sales fell 38 per cent in 1997 to 363,156, lower than Malaysia with one-third as many people and Indonesia with one-half the income levels.

In the first half of 1998, sales were down 72 per cent to 70,227, and industry analysts Automotive Resources Asia project sales for the whole year will barely top 150,000, less than half 1997's.

Meanwhile, new capacity continues to come on stream. In July Ford and Mazda started producing pick-up trucks at their new factory, which is capable of

turning out 100,000 vehicles per year, plus 30,000 knock-down kits. General Motors plans to start production at its new Thai plant in early 2000, although initial size has been scaled back to fewer than 50,000 vehicles annually and the company has yet to decide what kind of vehicle it will produce.

Some mothballing of old Japanese plants, particularly at Mitsubishi, has occurred, but they have been replaced by new facilities capable of producing export-quality vehicles.

The casualties of this overcapacity are numerous. Chrysler saw its joint-venture assembler and retail network operator go out of business and become entangled in a legal dispute with its foreign bankers. South Korean carmakers, with the exception of Hyundai, have virtually disappeared from the scene. European producers, replying mostly on imports, have been hit hard

by the devaluation of the baht and an increase in import taxes.

The Japanese carmakers which dominate the market have been engaged in damage control. They have been forced to bail out and take over their local subsidiaries when Thai partners have been unable to fund costly capital increases. A vast network of parts suppliers has also been given financial help, leaving the companies with little cash to innovate on consumer financing, although the local affiliate of Nissan has turned over its financing programme to GE Capital of the US.

With the collapse of much of Thailand's financial sector, such in-house financing packages are turning out to be a crucial factor in separating the winners from losers in the overcapacity conundrum. Ford is leading the way through its affiliate Ford Credit, offering payment schedules timed

around the rice harvest in rural areas, for example, and is one of only two carmakers in Thailand to show a rise in sales during the first half of the year.

The company is also putting emphasis on its service network as people expect to keep their cars longer.

"For me, overcapacity is really just competition," says Timothy Dunne, director of Automotive Resources Asia. "Sure there is going to be a shakeout, but those who see it as a problem are people who can't bring it all together - product, marketing and financing."

If the US automakers are more competitive with financing, the saviour for the Japanese may be exports. The export of vehicles and parts grew 84.7 per cent year-on-year in the first half of 1998, with car exports recording the highest growth rate, up 144 per cent year-on-year to \$11.35bn.

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# Turmoil in Asia New and updated

## After the storm, Mercedes looks for big revival a sales trickle

Indonesia's economic hurricane has left the country's motor industry in tatters, writes Sander Inoenes

By the time rioters tore into the showroom of Soebronto Laras, breaking through bullet-proof glass with a flagpole, there was little left to damage. The staff of Indomobil Sukses International, Indonesia's second-largest car producer, had removed the Suzukis, Volvos and Nissans from the four-storey showroom and hidden them in the back alleys of a nearby neighbourhood, just before gangs of looters raged through the area in a state of violent riots. In early August, the showroom still looked like a tornado had hit. For Indomobil, however, the riots were a storm in a teacup compared to the economic hurricane that has raged through Indonesia for just over a year now.

Car sales have slowed to a trickle of 2,000 units a month, or 5 per cent of last year's high. Production at most plants has halted even though the collapse of the rupiah has made Indonesian-made automobiles the cheapest in the world, with some Japanese models selling for as little as \$3,000.

"We stopped production in February and we still have 10,000 cars in stock," Mr Soebronto says. "Sales are basically dead."

Herman Latif, chairman of the Galatindo association of automotive industries, says he expects sales in Indonesia to drop to 50,000 in 1998, from 386,000 last year. Worst hit are the component producers, which saw orders collapse well before automotive sales did.

Astra International, the largest vehicle producer, which teamed up with Toyota to make the popular

troubled partners. Indomobil is part of the ailing Salim group, while Astra, a diversified conglomerate, has acknowledged offshore debts of \$1bn and domestic debt of Rp2,000bn.

General Motors earlier this year bought out its local partner, a relative of former President Suharto, and became the first wholly foreign-owned car producer. Analysts expect Toyota, Suzuki, Daihatsu and Isuzu to follow suit rather than try to save the Indonesian conglomerates they teamed up with.

Toyota has denied planning to increase its stake in Astra-Toyota, however. Astra said it was negotiating a restructuring of debt with foreign creditors and sale of a semiconductor subsidiary but has so far presented nothing close to meeting its challenges.

Mr Soebronto says Suzuki has continued to invest without demanding a larger stake in its venture with Indomobil. Instead, Mr Soebronto says that some of Indomobil's subsidiaries, such as a new Dunlop tyre factory, will be sold to the foreign partners while less viable companies will be allowed to go bankrupt.

The best news, for Astra and Indomobil, is that their most fearsome competitor has quietly dropped out of the race. A son of former President Suharto had teamed up with Kia Motors of South Korea to produce the Timor sedan, with generous tax exemptions that would have killed competitors. Mr Suharto bowed to the International Monetary Fund earlier this year and removed the exemptions before production started.

Without Mr Suharto to twist the arms of local banks to finance an assembly line, most analysts have declared the Timor dead.

Mercedes-Benz says it believes it can increase sales of its flagship S-class large cars by 60 per cent with an all-new model it is to launch in the next few weeks.

The new range should recapture sales lost by the outgoing model to rival cars, notably BMW's latest 7-series, according to Jürgen Hubbert, Daimler-Benz board member responsible for passenger cars. The current S-class sold 60,000 units last year, down from 80,000 when the car was launched at the start of the 1990s a decline reflected in market research showing a preference by many potential buyers for a more "driver-friendly" car than the two-tonne, double-glazed current model.

Mercedes engineers have reduced the weight of its successor by around 300kg and much improved its dynamic capabilities as part of a strategy to recapture more enthusiastic drivers, said Mr Hubbert. Fuel consumption is improved by 13 to 24 per cent over the previous model.

Mercedes-Benz hopes to restore annual world sales to at least 80,000 when production is fully on stream in 1999.

The new car represents a significant advance technically, with extensive use of aluminium in the body structure and sophisticated electronics systems. These include an "access authorisation" system, making door and ignition keys redundant, and an "intelligent" cruise control system - called Distronic - to keep the vehicle at a safe distance from the one in front.

Despite being marginally smaller than the outgoing car, interior room is increased significantly.

Mr Hubbert dismisses hostility from environmentalist groups and increasingly restrictive regulations on exhaust emissions as being likely to undermine the large luxury

Looking neat: Interior of the Mercedes S-class



Looking ahead: How Ford's new Transit might look

Looking sleek: Maserati's 2+2 Coupé

Looking to compete: The Mercedes S-class

car sector in the future. The new model, which has three valves per cylinder engine, meets Californian ultra-low emission (Ulev) requirements.

The launch of a new S-class is seen as wholly compatible with the company's decision to resurrect the Maybach name for a super-luxury car which Mercedes-Benz is to launch in 2002 and which is intended to compete with Rolls-Royce and Bentley. By then the two UK car brands will have come under the control of BMW and Volkswagen respectively.

One year after Fiat's Ferrari "supercar" subsidiary took control of Modena-based Maserati, the luxury sporting car maker is

poised to launch its first entirely new model for two decades.

The 2+2 Coupé is to be unveiled at the Paris motor show at the end of this month, with a 370 horsepower, twin-turbocharged engine and what its engineers claim are state-of-the-art electronics.

Paolo Marinsek, managing director of both Ferrari and Maserati, has overseen a complete re-equipping of Maserati's 60-year-old factory, including the introduction of robotics, to eliminate the quality problems which plagued the formerly De Tomaso-owned venture. These were partly responsible for sales of the existing Quattroporte model falling to fewer than 700 last year.

The Quattroporte itself has been heavily revised to be sold alongside the new Coupé, with half of its 800 main components changed as part of the quality drive.

Most intriguing to industry-watchers are what, precisely, Fiat's long-term intentions towards its latest automotive acquisition might be. By the time an open two-seater joins the range around 2001 Mr Marinsek intends Maserati output to be approaching 6,000 cars a year. But with an envisaged price range of \$70,000 to \$125,000 for the product range some industry observers conclude there is potential for considerably greater volumes.

Ford is using this week's Hannover commercial

vehicle show to unveil a concept indicating the possible appearance and features of its next-generation Transit panel van. First introduced more than 30 years ago, the Transit last year was western Europe's best-selling vehicle in its class for the ninth time in 11 years, with 140,894 units sold.

The company is giving no firm indication of when the current generation Transit will be replaced, and in the meantime has made several significant technology improvements to it. These include a clutchless manual gearbox and automatic braking distribution to maximise braking effectiveness at each wheel.

John Griffiths

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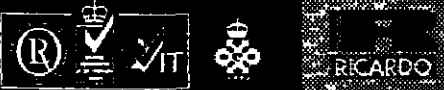
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# Statistics/Guest column

## Boom in Europe boosts Germans

As demand for new cars plunges in Asia, declines in South America and Russia, Germany is the strongest of the world's leading car markets during 1998, to the clear benefit of those carmakers with significant sales exposure to the region, writes Jonathan Storey.

The German motor industry has all reported substantial increases in their first-half 1998 profits, ranging from a comparatively modest 17.5 per cent rise at BMW to a 70 per cent increase at VW. VW's first-half performance was tempered by the 3-Series coupe's poor start, but the company's 3-Series coupe and continuing sales of the Golf, which was adversely affected by the strength of sterling, Daimler-Benz reported a 34 per cent rise in operating profit within its car division, reflecting buoyant export sales generally and positive reception for new models. The improvement in VW's results is partly attributable to its higher sales volumes in western Europe and North America. However, the company can also be seen to be benefiting from its cost-cutting and platform rationalisation policy which is (finally) enabling it to tap the scale economies offered by its four-marque structure. The French producers do not announce

profits but both have reported double-digit revenue growth during the first six months of the year. Despite economic news from Japan being unconvincingly gloomy, Honda and Toyota each reported record net profits for the year ended March 1998. Both companies benefited from successful models in the booming North American light truck market and sales growth in Europe. The continuing boom in domestic light truck

sales underpinned Chrysler's record income during the first half of 1998. Fiat also performed strongly in the first half of the year, helped by improved earnings in Europe. GM's first-half earnings were adversely affected by strike action at two component plants, the impact of which is calculated at \$1.2bn after tax.

Data provided by European Automobile Research

## New registrations of passenger cars (000)

Western Europe	1995	1996	1997	1998 (1st half)	1997 (1st half)	% change (1st half 1998)
Austria	280	300	270	184	170	-8.2
Belgium	590	600	580	294	280	-5.0
Denmark	136	142	135	70	65	-7.4
Finland	80	85	105	50	50	0.0
France	1931	2132	1775	885	785	-12.8
Germany	3314	3450	3520	1690	1600	-5.6
Greece	125	145	162	100	80	-20.0
Ireland	87	112	137	104	80	-23.6
Italy	1745	1732	2412	1300	1297	-0.2
Luxembourg	29	31	32	21	19	-11.1
Netherlands	445	473	478	212	204	-3.9
Portugal	201	219	214	127	112	-13.4
Spain	634	911	1016	592	610	-2.8
Sweden	170	180	225	105	114	-8.8
UK	1945	2025	2171	1157	1055	-9.6
Norway	91	125	125	61	65	-6.2
Switzerland	288	272	271	268	268	0.0
Others	14	14	15	8	8	0.0
Total	12055	12814	13431	7658	6990	-9.5
Eastern Europe						
Bulgaria	11	17	15	9	7	-22.2
Czech Rep	136	220	230	98	119	-17.6
Former USSR	767	841	907	456	472	-3.6
Former Yugoslavia	68	67	80	42	38	-10.5
Hungary	39	73	80	46	35	-25.0
Poland	264	374	401	275	262	-4.9
Romania	88	97	100	52	49	-6.0
Total	1401	1689	1803	1008	982	-2.7
North America Free Trade Association						
Canada	677	670	740	387	398	-2.8
Mexico	117	200	300	198	121	-38.7
US	8636	8521	8277	4189	4237	-1.1
Total	9430	9390	9317	4774	4746	-0.6
Latin America						
Argentina	275	256	315	175	145	-16.5
Brazil	1411	1401	1575	833	785	-6.1
Rest of Latin America	629	540	680	317	310	-2.3
Total	2315	2297	2570	1325	1240	-6.7
Asia						
China	433	390	465	217	222	-2.2
India	384	465	480	257	264	-2.7
Indonesia	38	44	74	8	35	-77.0
Japan	4444	4669	4492	2071	2400	-13.7
Malaysia	229	280	315	50	145	-65.5
Philippines	71	88	75	21	41	-49.7
South Korea	1074	1247	1159	545	542	-0.5
Taiwan	415	363	355	185	180	-2.8
Thailand	183	173	132	94	88	-7.1
Rest of Asia	172	185	209	90	130	-30.7
Total	7432	7904	7757	3165	4046	-21.6
Middle East						
Turkey	199	217	295	131	127	-3.1
Rest of Middle East	454	498	540	214	232	-7.7
Total	653	715	835	345	419	-17.3
Africa						
South Africa	456	550	625	263	289	-9.1
Oceania	568	593	588	301	279	-8.0
WORLD	34211	35894	36895	18739	18882	-1.3

## Passenger car producers

REVENUE	Currency	1998	1997	Percentage change (1998/97)
Europe				
BMW	DM(m)	30849	29103	6.3%
Daimler-Benz (cars)	DM(m)	30540	24980	22.3%
VW Group	DM(m)	65989	68647	-3.9%
Fiat Auto	Lira	12700	11858	7.1%
PSA	FF(m)	118035	100719	18.2%
Renault Automobile	FF(m)	97100	80090	21.2%
Volvo Cars	SEK(m)	50452	48160	4.8%
Japan				
Honda	Yen	5998.7	5293.3	13.3%
Mazda (non-consol)	Yen	1512.3	1426.8	6.0%
Mitsubishi (non-consol)	Yen	2500.6	2585.9	-3.3%
Nissan	Yen	6564.6	6470.4	1.5%
Toyota	Yen	11678.3	12243.6	-4.6%
US				
Chrysler	\$m	33800	30500	10.8%
Ford	\$m	73673	77679	-4.8%
GM	\$m	69889	77198	-9.5%
PROFIT*				
Europe				
BMW	DM(m)	511	435	17.5%
Daimler-Benz (cars)	DM(m)	2071	1547	33.9%
VW Group	DM(m)	831	488	70.3%
Fiat Auto	Lira	15	136	-88.2%
PSA	FF(m)	n.a.	n.a.	
Renault Automobile	FF(m)	n.a.	n.a.	
Volvo Cars	SEK(m)	1840	2154	-14.6%
Japan				
Honda	Yen	250.6	221.2	13.3%
Mazda (non-consol)	Yen	11.5	6.1	88.7%
Mitsubishi (non-consol)	Yen	-25.7	-15.1	-270.3%
Nissan	Yen	-14.0	-7.7	-116.0%
Toyota	Yen	454.3	385.9	17.7%
US				
Chrysler	\$m	2055	1512	36.0%
Ford	\$m	3895	3610	7.9%
GM	\$m	1953	3894	-49.9%

\* Not profit except Daimler-Benz, Fiat Auto and Renault Automobile (operating profit)

## Production of passenger cars (000)

Western Europe	1995	1996	1997	1998 (1st half)	1997 (1st half)	% change (1st half 1998)
Austria	69	97	91	46	46	-5.3
Belgium	1169	1144	1005	477	584	-18.4
Denmark	0	0	2.0	0.0	0.0	0.0
Finland	2163	2277	2541	1301	1188	9.5
France	3853	4046	4238	2367	2168	9.2
Germany	1422	1318	1953	803	814	-1.3
Italy	100	145	187	122	91	35.0
Netherlands	73	153	186	99	92	7.5
Spain	1659	1942	2010	1211	1064	13.5
Sweden	244	224	230	105	118	-10.9
UK	1532	1896	1698	922	878	5.1
Total	12893	13034	13732	7361	7024	4.8
Eastern Europe						
Bulgaria	2.0	1.0	0	0	0	0.0
Czech Rep	189	240	321	187	158	24.9
Former USSR	893	891	1038	562	560	0.4
Former Yugoslavia	7.0	8.0	11.0	5.0	5.0	0.0
Hungary	39	32	64	40	31	29.2
Poland	366	389	398	217	183	18.6
Romania	92	117	124	66	63	4.9
Total	1891	1702	2018	1080	1000	8.1
North America Free Trade Association						
Canada	1357	1292	1376	843	797	5.8
Mexico	697	804	830	483	417	16.3
US	6342	6070	6007	2775	2888	-3.9
Total	8397	8163	8222	4121	4102	0.2
Latin America						
Argentina	227	264	325	171	157	8.6
Brazil	1308	1467	1678	694	839	-17.3
Rest of Latin America	0	3.0	11.0	7.0	6.0	16.7
Total	1535	1734	2013	872	1002	-13.0
Asia						
China	282	321	378	183	185	-0.8
India	384	471	474	233	245	-4.8
Indonesia	7611	7864	8492	4137	4416	-5.3
Japan	193	229	225	95	136	-31.3
Malaysia	2003	2265	2308	765	1180	-34.1
South Korea	282	265	255	134	132	1.7
Taiwan	10716	11414	12132	5547	6275	-11.6
Thailand	220	333	300	158	157	-0.8
South Africa	182	175	171	85	89	-4.8
Turkey	207	190	225	126	111	13.1
WORLD	35545	36745	38811	19350	19760	-2.1

## Daewoo challenge to VW steps up

Volkswagen, the top-selling auto group in western Europe, continued to dominate the fast-growing markets of central Europe in the first half of this year, although its lead over the South Korean manufacturer Daewoo narrowed. Overall, half-year sales rose 6.1 per cent from 552,801 units in the first six months of last year to 586,468 units in 1998 in the region of six countries comprising the Central European Free Trade Agreement (CEFTA) - the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. VW - including the Audi, Seat, Skoda and VW brands - has ranked first in CEFTA since overtaking Fiat at the end of 1995. But its performance has regressed this year, amid a big downturn in its main market, the Czech Republic. The company's half-year sales in the region slid 4.6 per cent from 125,579 units in 1997 to 119,636 units in 1998.

Daewoo, which has become a CEFTA power by buying six state-owned automakers in the region since 1995, boosted half-year sales 16.9 per cent from 93,093 units in 1997 to 108,830 units in 1998. This growth cut VW's edge over Daewoo from 32,486 units last year to 11,068 units this year. Daewoo, Fiat and VW were the only automakers to sell over 100,000 units in CEFTA in the first six months of 1998. They accounted for 56.7 per cent of all sales. Following this Big Three

## Central European new light vehicle registrations January-June 1998

	Volume	Vol chg	% Share Jan-Jun	1998	1997
Total market	586,468	+6.1	100.0	100.0	100.0
Manufacturers					
Volkswagen group	119,636	-4.6	20.4	-22.7	
- Volkswagen	28,113	+5.5	4.8	4.8	
- Audi	2,571	+20.9	0.4	0.4	
- Seat	12,364	-15.5	2.1	2.5	
- Skoda	76,786	-4.5	13.1	14.8	
Daewoo group	108,830	+16.9	18.6	18.6	
Fiat group	103,687	-2.7	17.7	19.3	
- Fiat	89,961	-4.5	17.0	18.9	
- Lancia	458	+108.3	0.1	0.0	
- Alfa Romeo	2,085	+167.4	0.3	0.2	
PSA Peugeot Citroen	26,199	+1.4	4.5	5.0	
- Peugeot	12,612	-4.1	2.2	2.4	
- Citroen	15,587	+6.2	2.7	2.7	
General Motors	38,056	+5.7	6.5	6.7	
- Opel/Vauxhall	38,057	+5.8	6.5	6.7	
- Saab	235	+45.8	0.0	0.0	
Ford group	26,598	+12.0	4.5	4.8	
- Ford	26,553	+12.1	4.5	4.8	
- Jaguar	35	-30.0	0.0	0.0	
Renault	26,290	-6.0	4.5	5.4	
BMW group	2,549	-20.0	0.4	0.6	
BMW	1,195	+8.7	0.2	0.2	
Rover	1,225	-39.1	0.2	0.4	
Mercedes-Benz	4,785	+25.3	0.8	0.7	
Volvo	1,821	+46.3	0.3	0.2	
Other Japanese	56,443	+34.4	9.6	7.6	
Toyota	14,433	+67.8	2.5	1.6	
Honda	9,474	+8.3	1.6	1.6	
Nissan	11,500	+42.3	2.0	1.8	
Mazda	4,150	+14.5	0.7	0.8	
Mitsubishi	3,280	+56.8	0.6	0.5	
MARKETS					
Poland	367,246	+7.1	62.4	51.9	
Czech Republic	81,172	-18.2	13.8	18.2	
Romania	67,269	+3.5	11.5	6.4	
Hungary	58,911	+42.4	10.0	7.5	
Slovakia	36,675	-2.7	6.3	7.2	
Slovenia	33,108	+2.4	5.6	5.8	

Figures are rounded. VW holds 70 per cent and management control of Skoda. Renaults cars imported from US and sold in western Europe. \*204 holds 50 per cent and management control of Seat Automobile. \*\* Fiat group includes Lancia, Alfa Romeo, Innocenti, Ferrari and Maserati. Source: RIT Information Services

of central Europe were Dacia, of Romania, with 51,886 units, General Motors (39,068), Ford (28,588) and Renault (28,280). The survey, prepared for the Financial Times by RIT Information Services, covers new vehicles up to 3.5 tonnes gross weight. VW has built its lead on a broad presence in the region. The German auto group still centres its CEFTA strategy upon Czech brand Skoda, but it also assembles models from each of its four brands in Poland. It makes gear-

boxes as well as VW passenger vehicles in Slovakia, and it recently started assembling Audi's new TT sports car in Hungary. Competition in the region is likely to intensify as Daewoo, Fiat and Skoda plan significant expansions and renovations of their CEFTA plants. GM and Suzuki have co-designed a mini car for central-eastern Europe, and each will start independently to make and sell versions by 2000.

Ryan James Tutak

## The difference 10 years make

Bob Lutz, outgoing vice-chairman of Chrysler, looks back on some of the company's turbulent history

"Looking back" in the automotive industry is considerably easier and more pleasant than "looking forward" - and more accessible to the layman. The predictions of the future are usually the product of some weighty think-tank, or are authored by renowned professors at equally renowned universities. One such tome was entitled "The Future of the World's Motor Industry". It appeared in the UK in about 1980 or so and, yes, it was written by a famous British professor.

It is, 18 years later, an hilarious read. Where else could you learn that Chrysler was doomed, to be replaced as a member of the "Big Three" by the now-mighty American Motors, freshly armed with money and talent from Renault.



# Technology

## Fuel cells more than a dream

Kenneth Gooding looks at work that may make today's traditional engines a thing of the past

Shell, the Anglo-Dutch oil group, and Daimler-Benz announced last month they are to co-operate in developing fuel cell technology.

This is yet another sign that this technology should be taken seriously because Shell is obviously concerned about what might happen to its petrol stations if the motor industry eventually switches from using internal combustion engines.

Fuel cells offer one of the most attractive alternative propulsion systems to today's engines. Potentially, cars using fuel cells would have high fuel efficiency, create virtually no exhaust emissions, but have a range and performance that matches most cars on the road today.

A fuel cell also shares many of a battery's characteristics - silent operation, no moving parts, and an electrochemical reaction to generate power. But, unlike a battery, a fuel cell needs no recharging and will run indefinitely if supplied with fuel. The chemical reaction in the cell is the combination of hydrogen with oxygen to produce electric power.

Most of the world's big automotive companies have fuel cell development programmes and more prototype vehicles will be launched before 2000.

Some companies have already established a timetable for the start of mass production. Last year Daimler-Benz, which started its programme as recently as 1992, said it would build

40,000 fuel cell cars a year by 2004, subject to a final decision in 1999.

Ford, Toyota and General Motors aim to introduce commercial fuel cell models at about the same time.

In the meantime we should see prototypes from Volkswagen and Peugeot-Citroën, fuelled either by methanol or - like the prototype London taxi - stored hydrogen gas.

"It is possible that, by the middle of next decade, more than 100,000 fuel cell cars will be produced each year," says Alison Cowley, author of the annual platinum market survey produced by Johnson Matthey.

Her company has a keen interest in the subject because it estimates that fuel cells to drive a medium-sized car will need 10 grammes of platinum - and Johnson Matthey is the world's biggest platinum marketing organisation.

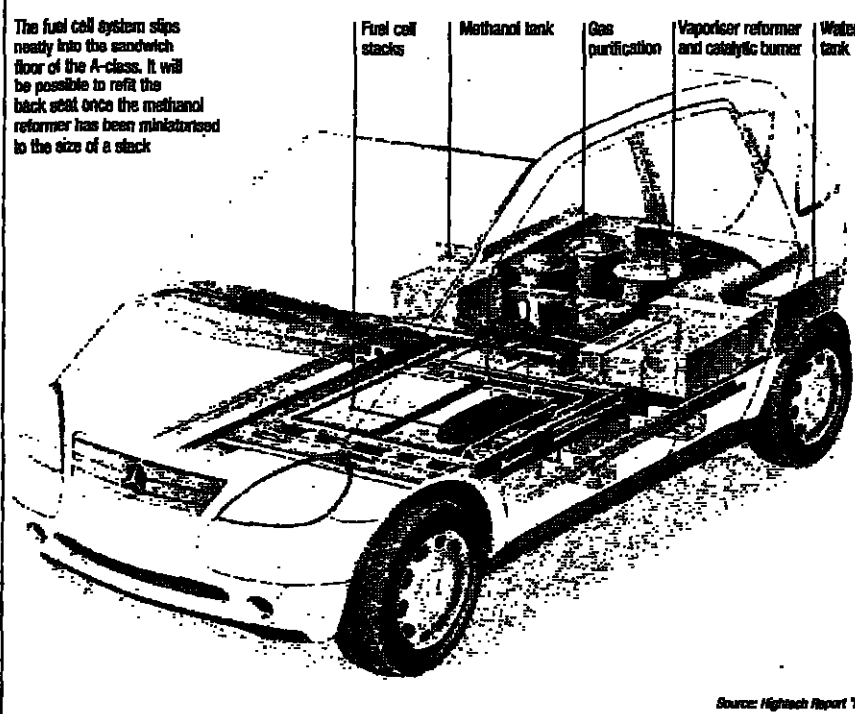
There is a problem, however. Daimler-Benz is not rushing these wonderful cars into production because not many people could afford them. A conventional car driven by fuel cell technology would today cost about £130,000.

Progress has been made, however. Ten years ago it would have cost £14m, and the stack of fuel cells would have left little room for the driver, let alone passengers.

Also, environmentalists are not exactly enthusiastic about fuel cells. Although they emit no nitrogen oxides, sulphur dioxide or soot particles, some carbon

Daimler-Benz methanol reformer

The fuel cell system slips neatly into the sandwich floor of the A-class. It will be possible to refit the back seat once the methanol reformer has been miniaturised to the size of a stack



dioxide does come out of the exhaust, along with air and water. Carbon dioxide is one of the gases blamed for global warming.

Fuel cells have been around for a long time - they were invented in 1839 by Sir William Grove, a British physicist - but their first practical application was in the Nasa space programme in the 1960s. They provided power aboard the Gemini and Apollo spacecraft.

The first fuel cell technology was suitable for stationary power generators but not for vehicles. An alternative was developed during the 1980s. Ballard Power Systems, a Canadian company, saw in the technology a way of meeting California's emissions legislation, passed in 1990, which called eventually for some "zero emission" vehicles.

The first full-scale demonstration of a fuel cell-powered vehicle came in 1993 when Ballard launched a prototype bus, but it was another two years before Ballard could come up with a bus where the fuel cell fitted into the standard

engine compartment and did not take up most of the passenger space.

Six of these fuel cell buses have been sold to transit authorities in Chicago and British Columbia, and the first was delivered last year.

Several companies have built cars powered by fuel cells. Daimler-Benz uses Ballard technology and can fit fuel cells into small cars. Toyota has shown two fuel cell versions of its RAV4 multi-purpose vehicle, powered by its own fuel cell technology. Renault, Mazda and GM also recently launched prototype fuel cell cars.

Last year Daimler-Benz and Ford joined with Ballard to set up two new companies - one, Eco, will invest \$420m to develop electric drivetrain systems. The other, DBS Fuel Cell Engines, will spend \$325m to advance fuel cell technology. Today Daimler-Benz and Ford own 20 per cent and 15 per cent of Ballard respectively.

Daimler-Benz says there is a clear division of labour in this association: the German group focuses on development of the complete

fuel cell system; Ballard concentrates on developing fuel cell stacks; Ford is responsible for developing the electric motor.

Shell fits in because it has developed catalytic partial oxidation (CPO) technology which transforms conventional liquid fuels into hydrogen-rich gas. It will work with DBS to see if this and fuel cell technology can be harnessed.

Only five months ago Daimler-Benz revealed it had developed the first fuel cell car using methanol as the fuel. Known as Necar 3 (New Electric Car), the vehicle, based on the Mercedes A-class car, does away with the need for bulky hydrogen tanks for fuel storage but uses a system to convert methanol into hydrogen while the car is on the move.

Ferdinand Panik, head of D-B's fuel cell project group, said the tie-up with Shell did not mean the methanol system was being abandoned. He said: "We are happy that Shell now joins us and we can investigate together novel ways to supply the necessary hydrogen gas."

## Magnesium puts cars on a diet

The metal is more widely used now that some problems have been overcome, says Kenneth Gooding

Step into a new car today and you will almost certainly get to grips with magnesium because this, the lightest structural material, is being used for virtually all car steering wheels.

That is not all. Use of the metal is growing faster in the automotive industry than any other production material. Up to the end of this century the main growth is expected to come from its use in cylinder head covers, intake manifolds, steering columns, instrument panels and seats. After 2000 it will be engine hoods, engine blocks, oil pans, grill reinforcements, wheels, roof panels, rear deck lids and structural supports that will get the magnesium treatment.

The metal, alloyed with aluminium, zinc or manganese, is being used to replace steel, aluminium and sometimes plastic as carmakers attempt to take the weight out of their vehicles in the search for better fuel economy. Its mechanical properties allow it to beat plastic for weight-saving, it weighs only 25 per cent as much as steel and, when alloyed, offers two to four times the high impact strength of aluminium, its main lightweight rival.

The increased use of magnesium in the castings for the automotive industry jumped by 32 per cent last year compared with the 1995 level. The material has been used by carmakers since the Model T Ford - so what has caused this sudden upsurge?

Two things in particular are responsible: the car-makers have put in place

long-term supply arrangements; and some difficult technical problems have been solved.

Not the least of the technical difficulties was magnesium's flammability - useful when it was used in incendiary bombs, but not when there was the likelihood of fine magnesium dust floating around a factory. Also, it is prone to corrosion. Apparently these two big problems have been overcome.

The car groups have now moved on to securing supplies. For example, Volkswagen owns 35 per cent of the \$750m Dead Sea Magnesium project in Israel which began production late last year but is already delivering more than enough magnesium to VW's Kassel gearbox housings factory to cover its annual demand for 3,000 tonnes. VW's partner is Israel Chemicals.

Ford provided \$30m for a demonstration plant and feasibility study for a magnesium project in Queensland, Australia, that started up in June this year. It is to be followed by a \$720m commercial smelter, and Ford has committed to a \$20n, 10-year contract to buy up to 45,000 tonnes a year of magnesium alloy from this plant which won't be in production until well after 2000. The Australian Magnesium Corporation is jointly owned by Normandy Mining and Queensland Metals.

When Ford signed the deal, Carlos Mazzorin, vice-president of purchasing for Ford Automotive Operations, said: "This will allow our engineering community to leapfrog the competition by moving away from designs that call for

small amounts of magnesium to designs that call for much larger amounts."

Meanwhile, General Motors, which has been catching up with Ford, at present the biggest automotive user of magnesium, has concentrated on signing long-term supply deals. In 1998 it contracted with Norsk Hydro of Norway, the biggest magnesium producer, to take a fixed amount of the metal every year and long-term pricing arrangements were put in place. GM also signed a long-term supply contract with Russia's big magnesium producer, Solikamsk.

Solkamsk wants \$250m to expand its plant to take advantage of burgeoning demand in the west. Mercedes-Benz is said to be considering backing this investment plan. The German group recently has been trumpeting the benefits of magnesium - the first of its cars to use the material in big quantities is the SLK convertible sports car which incorporates the metal in its body structure. Mercedes-Benz reckons to have saved half the weight of a steel body as a result.

Roskill Information Services, a UK market analysis company, says that the intervention of the car companies into the magnesium industry solves the problem of there being few producers and uncertainty of supply. There will now be substantial increases in production capacity in the next few years, particularly in Canada, Israel and Russia and new projects in Iceland and the Congo, as well as Australia.

Consequently, says Roskill, the use of magnesium by the automotive sector can be expected to grow at an average of 14 per cent a year to reach 100,000 tonnes by 2000.



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# Automotive Systems

The power to simplify.

A high-contrast, black and white photograph of a textured surface, possibly a rock or a piece of fabric, with the word "VIR" printed in large, bold, white capital letters at the bottom. The image has a grainy, high-contrast aesthetic, with the word "VIR" standing out prominently against the dark, textured background.

هكذا امن النصارى



# AEROSPACE

The French decision to privatise Aerospatiale is a big step towards a restructured European aerospace industry. Michael Skapinker reports

## Consolidation is name of the game

When six European governments demanded in July that their defence and aerospace companies explain how they planned to form a unified group, it was difficult to stifle a yawn.

Ministers from three of the countries - France, Germany and the UK - had made a similar demand in December and had received a limp response. In March, Aerospatiale of France, Daimler-Benz Aerospace of Germany, British Aerospace and Casa of Spain, had told the ministers that they wanted to form a single European Aerospace and Defence Company (EADC) but that much work was needed before they could do so.

By July, little had changed. Aerospatiale, Dasa, BAE and Casa were talking about how to turn the Airbus Industrie consortium, which they own, into a limited company. There had also been some defence consolidation. BAE had bought a 35 per cent stake in Saab of Sweden. Westland, the helicopter division of GKN of the UK, had agreed to an alliance with Agusta of Italy.

But, otherwise, little was happening to suggest that European consolidation would match the pace in the US, where a wave of mergers and takeovers had produced aerospace and defence giants such as Boeing and Lockheed Martin.

July's European inter-governmental statement saw Sweden, Italy and Spain joining the original three in demanding changes from their industrialists. This time they wanted details of how the EADC would be formed by October. Many observers shrugged. No doubt, European governments would issue yet another statement in December, demanding details of industry consolidation by next March. But

within weeks the European aerospace game changed.

The key was the French government's announcement that it would privatise Aerospatiale. Paris would achieve this by merging Aerospatiale with the defence interests of Lagardère, the privately-owned publishing to missiles group. Lagardère would take a 30-35 per cent stake in the combined group. A further 20 per cent would be floated. The French government's stake would fall below 50 per cent.

BAE and Dasa said the French government would still be too strong. They wanted its stake reduced further. But it was a watershed decision, nonetheless. Alison Wood, BAE's strategy director, said France's partners would be waiting to see what effect the French government's remaining stake would have on Aerospatiale's decision-making. "But it's a step in the right direction. We can make progress now," she said.

For the British and Germans, the French government's insistence on retaining a controlling stake in Aerospatiale had been an obstacle to all attempts to move forward. Dasa and BAE both insisted that any new, combined European company had to

be privately owned.

So frustrated were they by the French government's reluctance to reduce its stake, that BAE and Dasa began discussing a bilateral merger. It was enough to spur the Paris government into action.

What should, in theory, happen next is that BAE, Dasa and Aerospatiale merge to form the basis of the EADC, which could then take in other European aerospace and defence groups. In practice, this is likely to be a long and drawn-out process.

For evidence of this, look at the progress being made at Airbus. The four partners agreed last year to turn the Airbus consortium into a single unified company, but the process is unlikely to be completed for another year.

One of the biggest stumbling blocks at Airbus is that the four partners are still arguing about how much the assets they will insert into the new unified company are worth. They are also still trying to decide where the company, which will have its headquarters in Toulouse, should be registered for tax purposes.

These arguments will eventually be resolved, but hopes that the new Airbus could be launched by the beginning of next year are likely to be dashed.

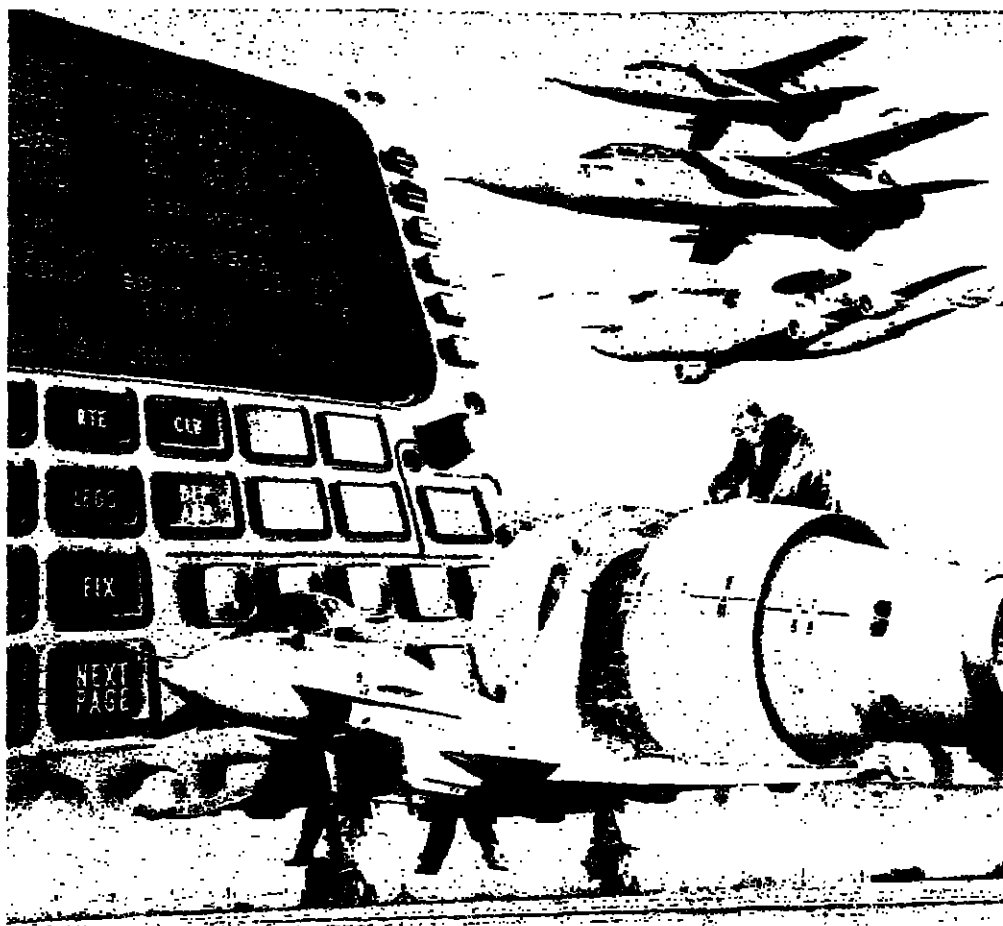


PHOTO MONTAGE BY STEVEN BERNARD

The single-company discussions are unlikely to be completed until the second half of next year.

Yet the Airbus partners are used to working together. Their collaboration has turned Airbus into the world's biggest maker of civil aircraft after Boeing. Their customers are commercial airlines, an increasing number of which are privately-owned, rather than owned by governments.

The relative absence of government involvement should make the transformation of Airbus easier because there is one less

constituency to satisfy. But if turning Airbus into a limited company is this difficult, how much harder will it be to consolidate the European defence industry, where governments are under constant domestic pressure to defend their national interests, buy locally and ensure that jobs and factories are preserved?

In addition, Europe will have to resolve yet another issue: how the consolidated civil aircraft company and the unified European defence group will interact with one another. Will the reformed Airbus form the basis

of a single civil aircraft and military equipment manufacturer? Or will civil aircraft and defence be different subsidiaries of a common holding company?

Seen in this context, the regular demands from governments that European aerospace executives explain what they are up to is understandable. Constant pressure on the companies to think about where they are going is no bad thing.

The governments' anxiety is that European companies have already fallen far behind the US in merging and consolidating to

meet the challenge of falling defence budgets.

US consolidation is certainly far advanced. Illustrious US names such as McDonnell Douglas, Martin Marietta and Grumman have been absorbed by other groups. The US authorities have approved 31 transactions worth a total of more than \$62bn since 1993 as the country's defence and aerospace industry have rationalised and consolidated their operations.

Now, however, the US authorities have decided the process has gone far enough. In March, the Pentagon blocked the planned \$8bn takeover of Northrop Grumman by Lockheed Martin, saying that it would reduce competition in the US defence sector to unacceptable levels.

At the same time, Boeing, the world's leading manufacturer of civil aircraft, has been experiencing severe problems of its own. Faced with a steep increase in airline orders, Boeing's Seattle-based production facilities were unable to keep up. The group had to suspend production of its 747 and 737 aircraft for a month last year in an attempt to catch up. The problems helped to push Boeing into a net loss last year of \$178m - the company's first loss in 50 years.

In July, Philip Condit, Boeing's chairman, said that the production crisis was largely over, although the economic downturn in Asia continued to worry the company. Within weeks, however, Boeing said its problems had returned and that it was having difficulty with production of its 747s, its leading product. In late July, Boeing announced six months' net earnings of \$306m, down from \$1bn last time. Boeing said the lower earnings were the result of reduced commercial aircraft margins and production difficulties with the new generation of 737 aircraft.

Airbus meanwhile has reported no production difficulties, and has won more orders than Boeing in the first half of this year. Airbus has taken orders from several customers in Boeing's backyard, including US Airways and a group of Latin American carriers. At the end of August it announced a landmark order for 186 new aircraft from British Airways, traditionally a Boeing customer.

Airbus's strong performance holds out hope for the European aerospace industry as a whole. But Europe still has a long way to go. The US government's blocking of the Northrop Grumman takeover indicates that it considers much of its industry's consolidation is now complete. In Europe, it has barely begun.

### Airframe manufacturers

FT writers look at key developments in the industry, including reports on Boeing, Airbus Industrie and the makers of regional jets  
Pages 2 & 3



### Defence

The defence sector's hot topics, including plans for a European mega-merger, US defence restructuring, the Eurofighter and the Joint Strike Fighter, and defence procurement  
Pages 10-13



### Space

Significant changes in the commercial satellites launching sector are likely to reshape the industry. A look at developments in Russia and China and profiles of ArianeSpace and Boeing's space business  
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Editor: Philip Sanders Graphics: Bob Hutchison Photo-montage: Steve Bernard



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## 2 AEROSPACE Airframe manufacturers

BOEING • by Michael Skapinker, Aerospace Correspondent

## Embarrassing episode concluded

Although it has solved the immediate crisis, Boeing's problems are not over yet

On July 1, Boeing, the world's biggest aircraft manufacturer, said it was announcing an end to the most embarrassing episode in its 82-year history.

Since the autumn of 1997, Boeing, which has its headquarters in Seattle, had been struggling to meet airlines' aircraft orders. Faced with a sharp increase in demand, Boeing's factories could not keep up - and for a month, the group had to suspend its Boeing 747 and 737 assembly lines, to allow workers to catch up.

Boeing had to make a \$1.6bn provision to take account of the crisis. The charge helped to push the group into a 1997 net annual loss of \$178m - Boeing's first in 50 years.

In their July announcement, Philip Condit, Boeing's chairman, and Ron Woodard, head of its commercial aircraft division, declared the crisis over. Mr Woodard said: "I would like to take this opportunity to publicly thank our employees who have been working long and hard to make this possible."

Within weeks, however, it became clear that the production crisis was not quite over. Boeing said it was still having problems with its 747 production. It also announced six-month net earnings down to \$303m from \$1bn the year before.

The group has other problems too: it is still digesting McDonnell Douglas, the rival US aerospace and defence company it took over last year. Boeing also still needs to modernise its manufacturing - a process it had half completed when last year's production problems struck. And it faces a renewed challenge from Airbus Industrie, the European consortium which has won some large orders in Boeing's traditional strongholds of the US and Latin America.

The takeover of McDonnell Douglas turned Boeing into the largest manufacturer of fighter jets as well as civil aircraft. It also vastly increased the size of Boeing's space business. Given the size of the task, the merger has gone well. It has been aided by the fact that the two companies' activities were complementary, rather than overlapping, which meant there were not many activities which had to be discontinued.

But Boeing is still winding down most of McDonnell Douglas's small civil aircraft business, which had dwindled in the years before the takeover. Soon after acquiring McDonnell Douglas, Boeing announced the end of the MD-80 and MD-90 twin-jet programmes.

In June, it said it had failed to find customers for the McDonnell Douglas tri-jet MD-11, which Boeing had hoped to continue manufacturing as a freighter. Production of the MD-11 will cease in 2000, with the potential loss of 4,000 jobs.

Only one McDonnell Douglas civil aircraft programme will continue: the 100-seat MD-95 aircraft. Boeing has renamed the aircraft the Boeing 717 and is looking for customers. So far, the aircraft has attracted only one order: from AirTran Airlines, formerly ValuJet, which has ordered 50 Boeing 717s and has taken options on 50 more.



Condit: cause of problem was that Boeing had not completed reform of production processes

Mr Condit has denied that the attention Boeing management had to devote to integrating McDonnell Douglas was the cause of the group's manufacturing crisis. The cause of the problem, he says, was that Boeing had not completed the modernisation of its production processes. It was half-way through a \$1bn modernisation programme when orders surged.

Mr Condit regrets that Boeing had not completed its production reforms by then. "I think a lot of the problems would have been avoided," he says.

The programme to change the way Boeing makes aircraft is called Define and Control Airplane Configuration-Manufacturing Resource

Management or DCAC-MRM.

The aims of the programme are simpler than its title. The first is to standardise the way Boeing makes aircraft. Airlines have traditionally been able to specify how they want their Boeing aircraft configured. There are, for example, 20 different types of clipboard that pilots can order for their cockpits. Under DCAC-MRM, airlines will still be able to choose - but they will be able to do so only from a menu of Boeing options. Airlines which want something different will have to pay for it.

DCAC-MRM will also change the way Boeing deals with its suppliers and orders components. Before beginning the programme, Boeing kept track of its parts through no fewer than 400 computer systems. Under DCAC-MRM, it will put all parts on a single computer system.

Boeing says that even when this task is completed, the drive to improve its manufacturing will continue. "Our main issues now are production efficiencies and working aggressively to reduce our overall cost structure," says Mr Woodard.

The company will be doing so in the face of stiff competition. Airbus claims that it took more orders than Boeing in the first half of this year - awakening memories of 1994, when Airbus won more orders than Boeing for

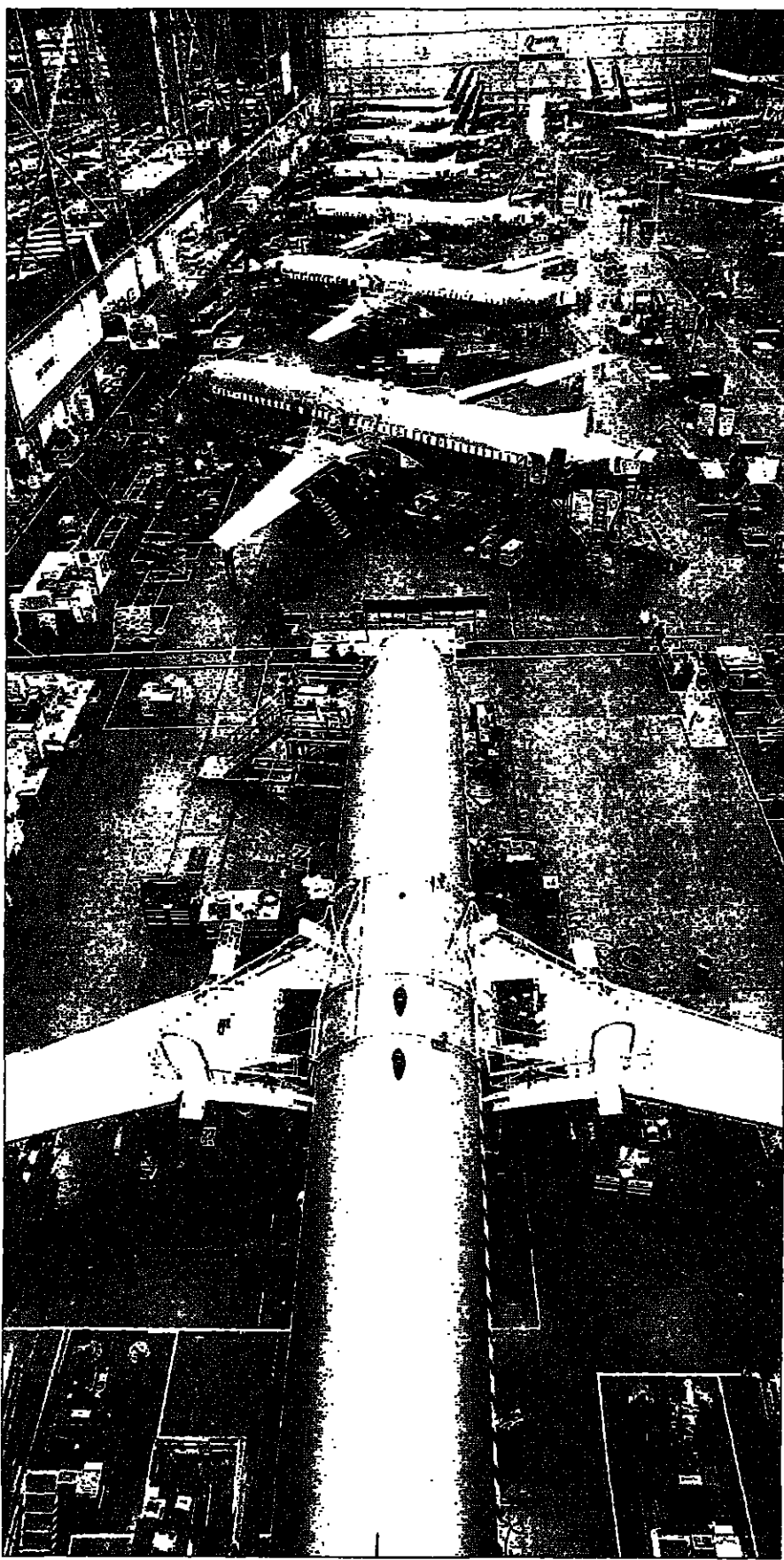
the year as a whole. It was the first time since the advent of the jet age that Boeing had failed to win the top orders slot.

Airbus is in the process of turning itself from a confederation of national aerospace companies into a single limited company, capable of competing more effectively against Boeing. Even in its current form, Airbus is not doing badly. Earlier this year, Airbus won an order for 30 wide-bodied aircraft from US Airways. This followed an announcement by US Airways last year that it would buy as many as 400 narrow-bodied aircraft from Airbus.

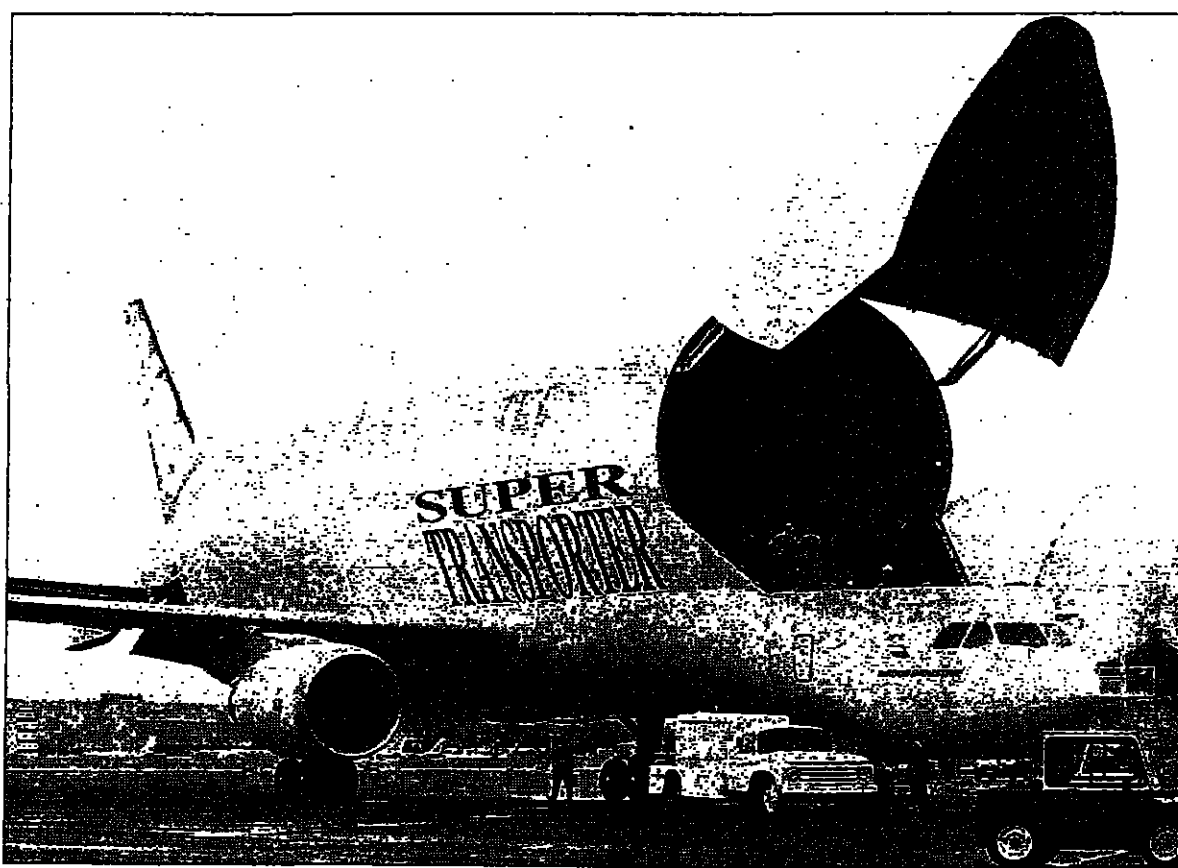
Airbus also succeeded in winning a 179-aircraft order for narrow-bodied jets from a group of airlines in Latin America - long regarded as Boeing's back yard.

Boeing executives argue that the transformation of Airbus into a limited company will be to its advantage. The Airbus accounts should then be open to inspection and the European manufacturer will not be able to offer the low prices it does at present, Boeing says.

For all its difficulties, Boeing still has enormous strengths. It is one of the world's best-known brand names and still offers the most extensive range of aircraft. In spite of its manufacturing difficulties, it expects to deliver 550 aircraft this year.



Boeing 737s in the final assembly lines at the company's plant at Renton, south of Seattle. In spite of its manufacturing difficulties, Boeing expects to deliver 550 aircraft this year. Picture: AP



An Airbus Industrie 'Beluga' A300-800ST, used to carry aircraft parts from Airbus factories to its assembly lines in Europe. In 1994, Airbus secured more orders than Boeing. It was the first time that the US manufacturer had lost the top slot since the dawn of the jet age. AP

AIRBUS INDUSTRIE • by Michael Skapinker

## Priority is to stand alone

By changing its structure, Airbus hopes to cut costs and become more competitive

In Toulouse, at the headquarters of Airbus Industrie, there is a new man in charge. Noël Forgeard became managing director of the world's second-biggest aircraft manufacturer in April, succeeding the pugnacious and voluble Jean Pierson.

Mr Forgeard, who came to Airbus from Lagardère, the French publishing and defence group, could not be more different from Mr Pierson. A softly-spoken graduate of France's elite Ecole Polytechnique, Mr Forgeard will certainly eschew Mr Pierson's often emotional attacks on Boeing of the US, its larger competitor.

But it seems Mr Forgeard's goals will be little different from those of Mr Pierson. For both, the highest priority is to turn Airbus into a stand-alone, limited company, with the product range and the cost base to take on Boeing in any aircraft-selling contest.

Since its foundation in 1970, Airbus has been a *Groupement d'Intérêt Économique*, a French legal construct which makes no profits or losses in its own right. These accrue to the four European companies which own Airbus - Aerospatiale of France and Daimler-Benz Aerospace (Dasa) of Germany, which each own 37.5 per cent, British Aerospace, which has 20 per cent, and Casa of Spain, which has 4.2 per cent.

The GIE structure has, in many ways, been a huge success. Airbus has produced a range of innovations, such as fly-by-wire aircraft, which

Boeing has been forced to copy. The European consortium has, in less than 30 years, become the second force in international civil aviation, displacing McDonnell Douglas of the US, which was last year acquired by Boeing. In 1994, Airbus shocked Boeing by taking more orders than the US manufacturer. It was the first time that Boeing had lost the top slot since the dawn of the jet age.

This year, Airbus has won some important contests in Boeing's back yard, winning orders in Latin America and from US Airways as well as from British Airways. In the first six months of 1998, Airbus says it has again forced Boeing into second place, taking 52 per cent of orders.

Given these achievements, why does Airbus want to change its structure? First, because it has no real idea of its costs. The four partners manufacture discrete sections of the Airbus aircraft. BAe makes the wings, Casa the tails, Dasa the fuselages and Aerospatiale the cockpits. Each company quotes Airbus a price for its work and, after negotiation, this is agreed. But Airbus central management in Toulouse has no idea how much it costs each company to manufacture its components.

Without a clear idea of costs, Airbus has no way of reducing them. This is important in a sector where price competition is ferocious. With only two manufacturers of large aircraft, and with demand at record levels, Airbus and Boeing should find it easy to increase prices. They do not.

The competition for airline customers is stiff, and the carriers play Boeing and Airbus against each other to win bigger discounts. Airbus, as a limited company, will control the facto-



Noël Forgeard: his goals will be little different from those of Jean Pierson, his predecessor

ries which are at present owned by its four shareholders. It should then be able to reduce costs by closing facilities where needed - although it will need courage to weather the political storms that will result. Airbus will also be able to achieve savings by buying materials and components centrally, rather than leaving the four partners to do so separately.

A second reason for turning Airbus into a limited company, is that it should be able to improve customer service. At present, if there is a technical problem with an aircraft, Airbus managers have to go back to the partner concerned for help in resolving it.

Having decided to turn Airbus into a single company, the partners have not found it easy to agree ways of doing so. There have been disputes over whether Airbus should own the four partners' factories outright and over the value of the companies' assets.

The change is likely to happen by the end of next year. Airbus has some other important decisions to make in the meantime. The most important is whether to compete with Boeing at the

upper end of the market - for jets of 400 seats or more. Boeing has this segment to itself, with its 747. The biggest Airbus aircraft in operation is the 335-seat, wide-bodied, twin-engine A330-300.

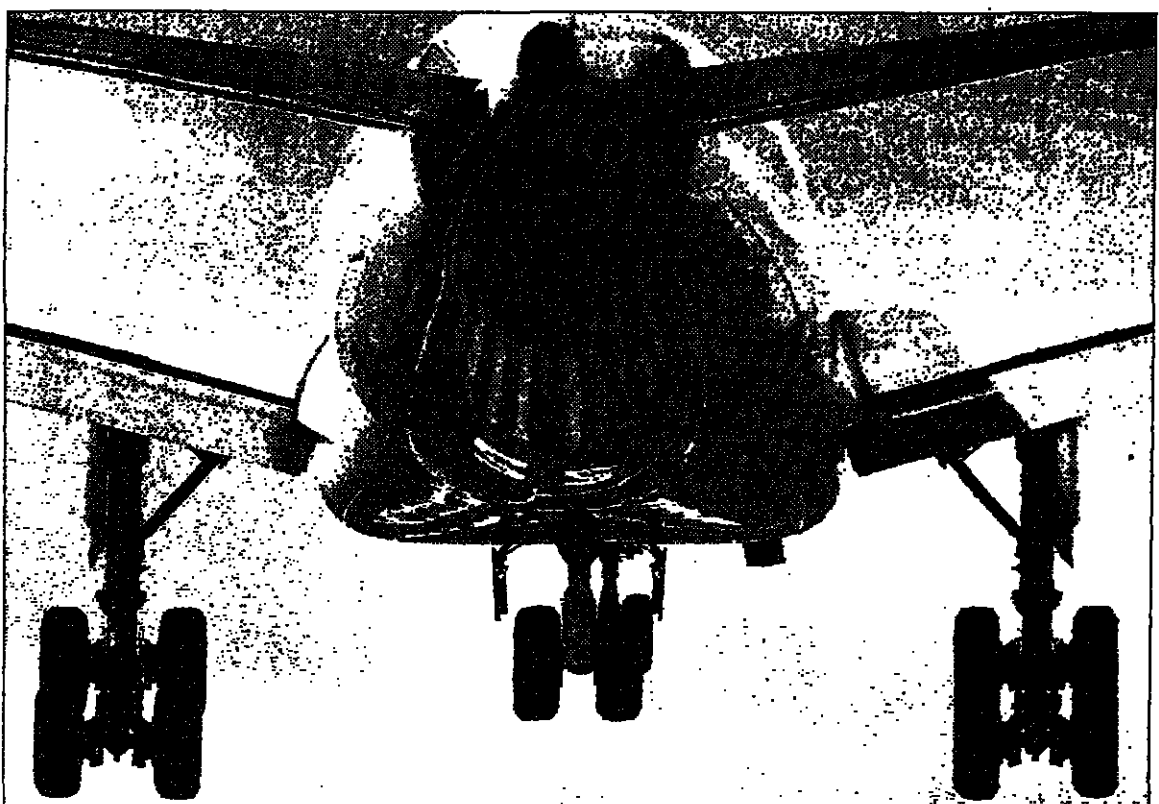
Airbus has extended its range by launching the four-engine 380-seat A340-600, an extension of the existing 300-seat A340. The A340-600 has won orders from several airlines, including Lufthansa of Germany and Virgin Atlantic of the UK.

But many at Airbus believe this is not enough. It is not just that Boeing has the 400-seat market to itself. It can also provide airlines with a range of aircraft, demanding full prices on the Boeing 747 and offering discounts on the narrow-bodied jets, where it competes directly with Airbus.

The European consortium plans to outflank Boeing by producing a range of "super jumbo" aircraft, with 550 seats or more. This will be an expensive project, with development costs put at anywhere between \$800m and \$1.2bn. British Airways and Singapore Airlines have expressed an interest in the aircraft, and Airbus is also talking to other carriers.

Boeing insists the market for these aircraft is too small to justify an investment of this size. It has shelved its own plans for a "super jumbo". To Airbus, however, this is little more than bluff. If the Europeans produce a 550-seater, they are convinced Boeing will do so too.

Airbus regards competing at the other end of the market as less important. It has discussed developing a 100-seat aircraft with China to compete with Boeing's 717 but the project is likely to be abandoned. For Airbus, there is much more money to be made from large jets.



## ANOTHER TOUCHDOWN

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REGIONAL JETS • by Michael Donne

## Market spurs rapid development

A battle royal for small jetliner sales is looming between Airbus and Boeing

While much attention is focused on the bigger types of passenger aircraft such as four-engine Boeing 747s and twin-engine 777s for their glamour and their long-distance and multi-passenger capabilities, beneath them in the airliner hierarchy is a rapidly developing array of smaller jetliners, to meet a burgeoning market.

These aircraft are broadly classified as "regional jets", or "RJ's", capable (according to type) of payloads ranging from the Fairchild Dornier 30-seat Type 328 and 42/44-seat 428 (with plans for larger variants), the 30-35 seat Embraer E175, through 50-seaters such as the Bombardier CRJ and the 70-80 seat Canadair CRJ-700.

At the top of the RJ pyramid are the 100-plus seaters such as the Fokker 100 (of which many remain in service despite the demise of that manufacturer), the Airbus A319 and the British Aerospace BAe 146 and Avro RJ series, with the Avro RJ-100 seating as many as 110 passengers. The latest new Boeing aircraft, the 717-200 (formerly the McDonnell Douglas MD-95), seating 106 passengers, joins the clan next year.

All these regional aircraft types are intended specifically for high-frequency, low-traffic short-haul routes (broadly covering distances from a few hundred miles to about 1,500 miles). Generally, they are designed to serve places not directly served by the big "trunk-line" longer-distance operators, either by directly linking them with each other or providing regular and frequent feeder operations to the big "hub" airports in big cities.

For that purpose, such aircraft require short take-off and landing performance to suit the smaller airfields they use, fast turn-around

times at airport gates, and the ability to sustain some eight to 12 flights of about an hour every day.

For many years, the short-haul regional aircraft market was dominated by turbo-propeller powered airliners because of their smaller payloads, lower noise levels and lower emissions, which made them highly acceptable at the smaller airports serving highly environmentally-sensitive communities. But the evolution of aero-engine technology in recent years has been such that it is now possible to provide jet engines that are smaller, quieter and cleaner than ever before, thereby opening the way to the development of smaller jet airliners.

This does not mean that the era of the turbo-prop airliners is over; far from it. But there is a growing belief that in the years ahead the proportion of turbo-props in the regional aircraft fleet will decline as the number of suitable jets rises. Nevertheless turbo-props are also being modernised, for example with new noise and vibration "suppression devices" which will improve their own marketability. So turbo-props are likely to remain widely popular, especially for the shortest of air journeys.

However, the fact remains that as air travel itself expands, many passengers, especially those accustomed already to jet travel over longer distances, are increasingly demanding jet service on regional routes. That demand is dictating the development of the short-haul regional jet, which is why even 30-seaters are now being developed.

While the market for all types of RJs is growing, the 100-seaters are proving the most popular. There are larger types of aircraft that can do the job just as well although those tend to be used more on the medium hauls. Airbus, for example, builds a range of what it calls its twin-engine "single aisle" family starting with the A-319 with up to 145 seats, through the A-320 with up to 180 seats, to the A-321 with as many as 220 seats.

Boeing's highly successful family of twin-engine 737-type jets, with collective orders now totalling more than 4,000 aircraft, includes types which seat about 100 passengers at a time, especially, for example, the 737-500 model in the Boeing "Next Generation" 737 series, seating 110-132.

There is no doubt in the minds of Airbus Industrie and Boeing as to the potential demand, reaching well

into the next century. Airbus pointed out in its 1998 Global Market Forecast that it could foresee a market for some 16,700 jet aircraft of at least 70 seats or more through to the year 2017, of which it specifically estimated the market for aircraft with between 70 and 125 seats at just under 2,000.

Boeing, in its 1998 Current Market Forecast, suggested there was a market for more than 2,500 aircraft in the broad 80-100 seat category over the next 20 years.

While aircraft such as the BAe 146 and Avro RJ, together with remaining Fokker 100s, will continue to offer tough competition worldwide in the 100-seater regional jet market, the biggest sales battle seems likely to be between Airbus and Boeing.

An earlier much-publicised plan for Airbus to build a new family of short-haul regional jets in collaboration with the People's Republic of China, called the AE-31X, has been shelved, partly because of Chinese doubts about the programme and Airbus's own desire not to compromise its A-319 venture, and partly because of Asia-Pacific aircraft market uncertainties in the continuing financial turbulence in that region.

Asia's financial crisis has

also been a big factor in generating uncertainties about a plan by IPTN of Indonesia to develop a 100-130 seater, the N-2130.

The Airbus A-319 has already attracted orders for nearly 500 aircraft, with nearly 100 already in service. Leading European operators include Lufthansa and Swissair, while other important users include Air Canada. International Lease Finance Corporation has ordered 49, and there have been some big orders from the US, with US Airways ordering 109, Northwest Airlines 50, and America West Airlines 22.

The Boeing 717-200 has been rolled out at Long Beach, California, and is due to make its maiden flight this September. Delivery is due in the summer of next year - after a swift test and certification programme. It has gathered orders for only 55 aircraft so far - 50 from AirTran Airlines, a US low-fare domestic airline (with 50 more on option), and five from Bavaria International Aircraft Leasing of Munich. Such massive Airbus success in Boeing's own back yard is clearly spurring the American company to forge ahead with the 717-200, presaging a big battle in world markets in the years immediately ahead.

JAPANESE AEROSPACE • by Alexandra Harney in Tokyo

## Crisis jeopardises funding for sector

Post-war defence laws have forced the sector to rely on technology from overseas

Japan's aerospace industry is facing mounting pressures to measure up to international standards at a time when the sector can least afford it. Changes in the global industry and a number of expensive and well-publicised errors have fuelled new criticism of the big aerospace manufacturers just as Japan's economic crisis is jeopardising funding for aerospace projects.

It is hardly a convenient time for the industry. Japan's economic decline hit manufacturers' profits last year, as companies cut back capital spending and demand for cars and trucks collapsed. Some of the biggest aerospace companies have gone as far as to lay off workers, which is nearly unheard of in Japan. To make matters worse, the government's defence budget shrank for the first time since 1955 last year amid increasing pressure to reduce the national deficit.

These changes take place against a background of stunted development in the aerospace industry. The country's post-war constitution and national defence laws, which prohibit the manufacture of weapons or military equipment, have forced Japanese manufacturers to rely on technology from overseas. This has limited the growth of the domestic aerospace industry, as well as its international competitiveness.

For example, aerospace orders accounted for only 15 per cent of sales, or ¥400bn, at Mitsubishi Heavy Industries (MHI), the industry leader, last year. At rival Fuji Heavy Industries (FHI), aerospace operations represented only 5.4 per cent of sales last year, according to

estimates by Morgan Stanley Dean Witter. The group reported a 22 per cent decline in profits in the year that ended in March, from ¥38.6bn to ¥30.7bn, although turnover was up 6.6 per cent to ¥1,034bn.

"Developing a strong aerospace industry requires military technology, and Japan does not have that military capability. In that type of market, it is very difficult to make competitive products," said Yasutaka Izumura, industry analyst at Deutsche Securities in Tokyo.

Although two government agencies, the National Space Development Agency (Nasda) and the Institute of Space and Aeronautical Science (Isas), the group that was responsible for Japan's first satellite launch in 1970, have encouraged new development, the industry is still significantly smaller than those in Europe or the US.

However, despite its small size, the industry has nurtured an indigenous engineering capability, particularly in rockets and engines. Earlier this year, the government attempted to launch its first domestically engineered rocket, the H2. MHI designed the engine for the H2, the industry's first engine to be powered by liquid fuel. The engine cost about ¥700m to develop, according to agency reports.

The launch failed, costing an estimated ¥50bn, and delivering a devastating blow to the industry. The failure sparked a series of critical reports on the country's space programme, but it has not deterred the industry's leading companies in their efforts to catch up with rivals in the US, Europe, and Asia. The sector leaders - MHI, FHI, Kawasaki Heavy Industries (KHI), and Ishikawajima-Harima Heavy Industries (IHI) - are re-tooling their aerospace divisions by cutting costs and teaming up to streamline production.

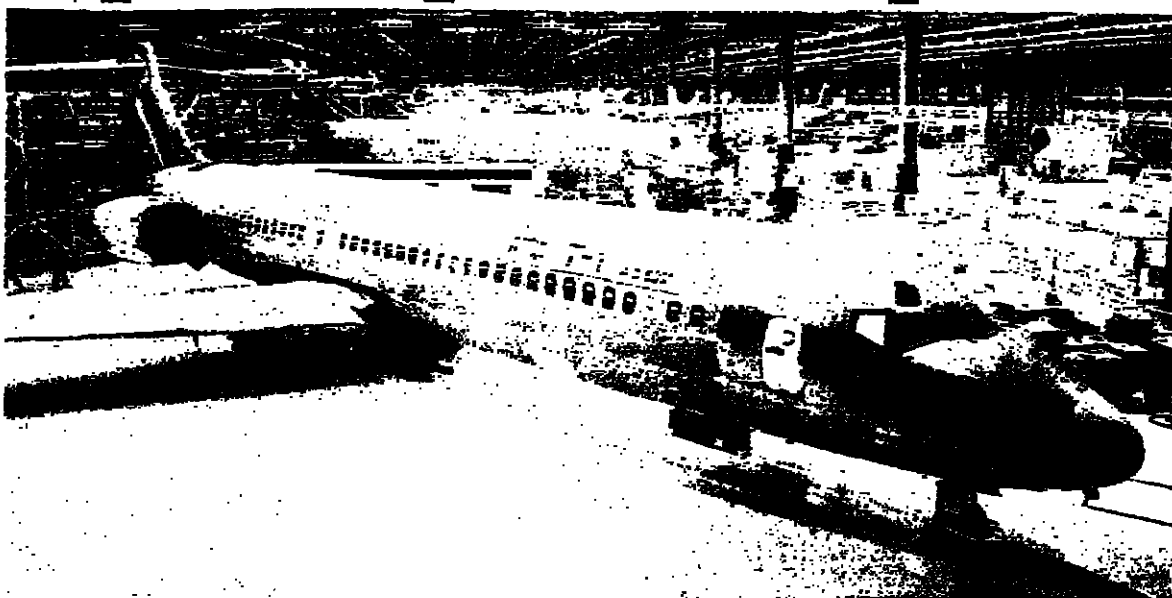
MHI and other manufacturers have formed Rocket System, a consortium of 73 companies based in Tokyo that is building the successor to the H2 rocket, dubbed the H2A. The group aims to eventually launch six satellites each year, using the H2A after it is rolled out some time around 2000.

A group of companies is also engineering a low-cost rocket. The J-1 rocket, designed by IHI and Nissan Motors, uses a modified Russian motor in part of the production process to lower expenses. It will also be powered by liquid methane, which costs slightly less than liquid hydrogen. The group has managed to trim the cost of the rocket to ¥3.5bn, down from ¥4.8bn spent to build its predecessor. However, this is still twice as expensive as comparable rockets produced in the US, Europe and elsewhere in Asia.

Nevertheless, there are increasing pressures for change, analysts said. Mr Izumura said: "Japanese manufacturers have the materials, the equipment, and the engineering skills. They have always been good at delivering high quality goods and low prices on time. If they focus on a component business, they could do very well."

Japanese companies are involved in several joint development projects with Boeing, MHI, KHI, and FHI helped design the 767 as well as the 777 airliners. MHI is also part of a consortium led by Boeing to design engines for space launch vehicles, and supplies Boeing with fuel tanks for those launchers. And MHI and KHI have licences to produce several Boeing fighter jets and helicopters for the country's Air Self Defence Forces.

There is certainly potential for growth in the industry, analysts said. With economic pressures at home, and growing consolidation in the global market, the timing could be right for Japanese aerospace companies to reposition themselves internationally.



The latest new Boeing aircraft, the 717-200 (formerly the McDonnell Douglas MD-95), seating 106 passengers, joins the clan next year

Building aircraft is just the tip of it.

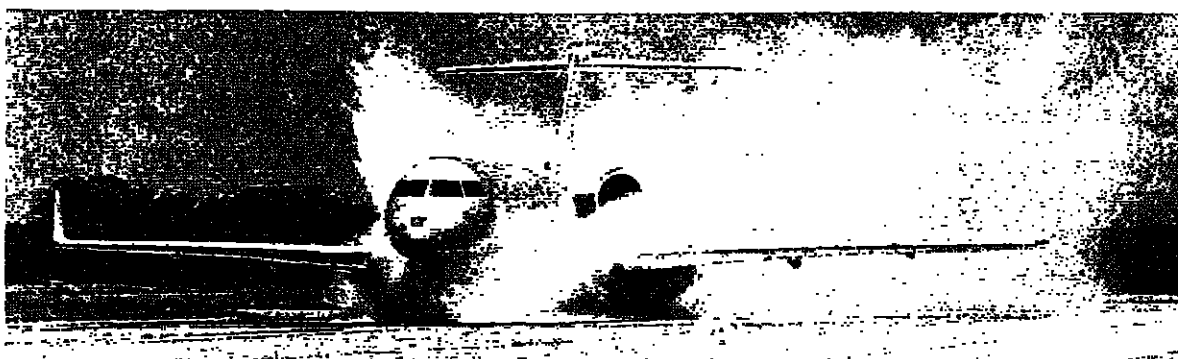
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## 4 AEROSPACE Engines



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**SAFETY** • by Roger Bray

## Technology to the rescue

The industry may employ virtual reality for pilots in its efforts to cut accident rates

Future pilots will fly airliners much as though they would play a sophisticated computer game. Three-dimensional images of landscape, cloud and distant runways will appear on instrument panel screens, or as head-up displays on their windshields. Shortly before landing they may see the shape of a preceding aircraft, following it down as it makes a perfect final approach.

The concept has been around for years and the technology has been tested already in Europe and the US. Accident statistics suggest its application is overdue.

A safety review, published earlier this year by the UK Civil Aviation Authority and covering the period 1990-1996, blamed a "lack of positional awareness" as primary cause of 123 fatal crashes, or 20.9 per cent of the worldwide total. It cited the failure of pilots to take appropriate action - or any action at all - as a principal contributing factor in another 116 fatal accidents (19.7 per cent).

In most of the crashes caused by lack of positional awareness - which became more common during the six-year study period - pilots did not realise how close they were to either a mountain or to level ground. Frequently their aircraft lacked equipment which might have alerted them in time or the airport they were approaching had not installed precision landing aids.

The majority of accidents in the second category, which became a little rarer, happened because pilots continued descending through safe minimum flight levels when visual references were absent or suddenly lost.

The industry's dry term for such crashes is "controlled flight into terrain" (CFIT). Last year, disasters falling into this category killed more than

600 people, a record high in a year whose overall accident statistics can have provided little encouragement for the industry and its safety regulators. Although total passenger deaths fell, there was an increase over the previous year in the overall number of hull losses. Jet crashes rose from 19 to 21 and turboprop accidents were up from 23 to 32, a rise which was offset only partly by the fact that there were 759 more airliners in service.

The International Air Transport Association is concerned that if the accident rate remains at its 1996 level and traffic grows at rates currently forecast, there could be an important crash every week by 2015 - knocking huge dents in consumer confidence. It has set a target of reducing the accident rate by 50 per cent from its 1994 level by 2004.

CFIT crashes have been worrying the industry so much that four years ago the Virginia-based Flight Safety Foundation, with the co-operation of the International Civil Aviation Organisation, the International Air Transport Association and the US Federal Aviation Administration, set up a task force to tackle it. The Foundation's aim was a 50 per cent reduction in accidents through better training and greater awareness of the dangers.

Eventually, it believes, the problem can be beaten by technology. Already available, for example, is the enhanced ground proximity warning system, which relates the aircraft's position and altitude to a database of terrain, generates a map-like display and provides a one-minute warning if the aircraft is in danger of flying, for example, into the side of a hill. Older systems give only a 15-second alert.

American Airlines has equipped about a quarter of its fleet with an Allied Signals EGPWS which gives pilots a two-dimensional view of the terrain below. First priority was to fit the systems in jets flying on transatlantic routes, to Latin America and to ski resort airports - where mountains are an obvious hazard. But the airline

plans to have them in all its aircraft by the end of next year.

Virtual reality can offer even more sophisticated solutions, believes Richard Profit, the CAA's group director of safety regulation. He believes its advent could be of great significance. "In the days of analogue dials, pilots only had about six instruments they needed to scan. Now they get so much information that I think there is a lot of work to be done on the way they receive it. For example, pilots flying an approach to land have a mixture of symbols and numbers which bear no relation to the outside world. It is now possible to provide the equivalent of a computer game with images of weather, runways and even an aircraft, flying a perfect flight path, just ahead of them - so that all they would need to do is follow it."

He believes 3-D displays - sometimes described as four-dimensional because they will also include a time buffer to warn pilots of imminent danger - will overtake EGPWS as standard equipment on new aircraft. The problem, hardly a novel one for the airline industry, is that those airlines which stand to benefit most are also those most hampered by scarce resources.

If virtual reality becomes an industry standard, they may also be the most reluctant to retrofit older aircraft and the slowest to acquire new ones as manufacturers start to install the technology in the factory.

Break down the toll of CFIT crashes between regions and a depressingly clear pattern emerges during the period covered by the CAA report. In North America, only 7.3 per cent of accidents were caused primarily by lack of positional awareness. In Europe it was 10.9 per cent. But in Africa the figure was 19.4 per cent, Australasia 30.6 per cent, Asia 31.6 per cent and in South and Central America 33.3 per cent.

In areas with the worst percentages, relaying crucial information to pilots in simpler forms could prove a big life saver. How soon is another question.

**ENGINE MANUFACTURERS** • by Michael Skapinker

## More alliances are likely

The formation of new partnerships is likely to be a feature over the next few years

In July, the Rolls-Royce aero engines group stunned the motor industry by announcing that, from early next century, BMW of Germany would have the right to produce cars carrying the Rolls-Royce name.

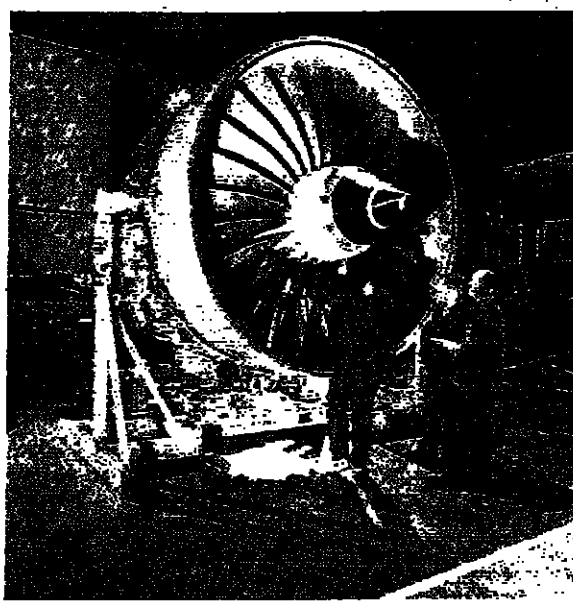
The announcement came even though Volkswagen, BMW's German rival, had bought the Rolls-Royce cars business for £480m from Vickers of the UK earlier in the month, outbidding BMW. But the Rolls-Royce aero engines group owned the rights to the Rolls-Royce name and refused to give it up to any car manufacturer but BMW.

After 2002, Volkswagen will have the right only to the Bentley name. BMW will produce a new range of Rolls-Royce cars at a factory to be built somewhere in England.

Why did Rolls-Royce behave in this way? Largely because BMW is its partner in the aero engines business. BMW Rolls-Royce was set up in 1990, with the German manufacturer holding 50.6 per cent and the UK group the remainder. The joint venture builds the BR700 series of engines for long-range business jets and regional aircraft with between 80 and 140 seats. The joint venture also has a stake in other Rolls-Royce engine products.

That the two companies should work together is not unusual in the aero engines business. While the aircraft industry and defence manufacturers are still restructuring, merging and forming new alliances, inter-company partnerships have been part of the aero engine scene for years.

A partnership between General Electric of the US and Snecma of France produces CFM engines. The GE-Snecma joint venture is the sole supplier of engines



Rolls-Royce Trent 800 aero engine, used on the Boeing 777

for the Boeing 737, the world's best-selling aircraft.

Another well-established partnership is International Aero Engines (IAE) - made up of Pratt & Whitney, Rolls-Royce, MTU of Germany, Fiat and Japanese Aero Engines - which produces engines for the Airbus narrow-body A320 family.

Towering over the industry are the big three engine manufacturers: GE, Pratt & Whitney and Rolls-Royce. In the US, large aerospace and defence groups such as Lockheed Martin and Boeing, which last year bought McDonnell Douglas, have been formed through a series of mergers and takeovers. In Europe, aerospace and defence groups such as British Aerospace, Daimler-Benz Aerospace of Germany and Aerospatiale of France are talking about merging to cut costs.

For years, some analysts have predicted that the aero engine industry would go through the same process, with GE and Pratt & Whitney merging or, more likely, Pratt & Whitney taking over Rolls-Royce. Neither of these scenarios looks imminent. The US government, the principal buyer of GE and Pratt & Whitney's military engines, would almost certainly block a merger of the

directly with the V2500, produced by IAE. The announcement irritated Rolls-Royce. Sir Ralph Robins, its chairman, said: "We think it would be a retrograde step."

Rolls-Royce has shown remarkable loyalty to BMW, as evidenced by its insistence that the German group win the car brand, but the breaking up and formation of new partnerships is likely to be a feature of the industry over the next few years.

Another way in which the large engine manufacturers are likely to attempt to improve profit margins is by trying to avoid competing with each other. All three large manufacturers built engines for the twin-engine wide-bodied Boeing 777 and Airbus A330-300. The result was ruinous price competition which, one US executive says, means none of three are ever likely to make a profit on the engines.

Pratt & Whitney has said it will never again enter another three-way contest to provide large engines for a new aircraft. Being the only supplier of engines for an aircraft type is the ideal situation for the jet manufacturers.

The GE-Snecma venture is the only supplier of engines for the four-jet wide-bodied Airbus A340. GE also wanted to be the exclusive supplier of engines for new variations of the A340 - the long-range A340-500 and the 380-seat A340-600. However, discussions between Airbus and GE broke down over financial terms.

Rolls-Royce eventually emerged as the engine manufacturer for these two new aircraft. Both sides refrained from calling it an exclusive supply deal because Airbus was, at that time, objecting to exclusive 20-year aircraft supply agreements that Boeing had concluded with three US airlines. But Rolls-Royce looks like being the only supplier of engines for the A340 derivative aircraft. Rolls-Royce has had additional success in persuading the UK government to invest £200m to help it develop the engines.

Some of the existing engine partnerships could also be replaced by others. Pratt & Whitney announced earlier this year that it would build a new engine which - would compete

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**ENVIRONMENTAL ISSUES** • by Roger Bray

## Clean air turbulence

All efforts to cut pollution will be in vain unless air traffic congestion is tackled

The Swiss have the cleanest air in the world and they would like to keep it that way, said the copy in a recent advertisement from engine manufacturer CFM International. A snowy mountain peak, photographed against a deep blue, cloudless sky, emphasised the point.

At first glance it might have looked like an attempt to lure more tourists to the Alps. That would have made perfect sense; more tourists mean increased engine sales. But the real explanation came in the small print: Zurich's Kloten Airport was imposing charges for airline emissions.

"Operators of the V2500-A5" sniped the advertiser, "must now pay an extra 50 per cent on their landing fees, while the same aircraft powered by the CFM56 incur no penalty". The aircraft in question, clearly, was the Airbus A320.

The claim drew a tart response from Rolls-Royce, part of the International Aero Engines consortium which makes the V2500. Airlines might find that its overall fuel savings outweighed such penalties.

It was predictable banter between manufacturers but it carried more than the usual significance, for it provided a vivid illustration of the seriousness with which the aviation industry now takes the green lobby and of the dilemmas it faces as it tries to accommodate environmental demands.

On the face of it, cutting fuel consumption is something everyone wants - airlines because it brings down costs, their shareholders because that means healthier profits, passengers because it means lower fares, environmentalists because it produces less pollution.

It is not that simple. Although water vapour from engines may also contribute to global warming, the two main pollutants produced by aircraft are carbon dioxide and nitrogen oxides. Both

Keeping the skies clear: the industry is taking problems seriously

act as greenhouse gases but below a certain altitude NOx can destroy rather than increase ozone, diminishing a filter for ultra violet rays. Burning less fuel - by increasing high pressure ratios in engines - reduces the former but can increase the latter. And as engine makers complain, there are as yet no clear scientific guidelines weighing the balance between the two.

Next spring, the UN inter-governmental Panel on Climate Change is expected to produce a report defining what is known - and what is still not known - about aviation's impact on the atmosphere. It may go some way towards resolving the problem.

Aviation appears to be a relatively small polluter. The same UN panel has estimated that jet engine fuel consumption produces about 3 per cent of total carbon dioxide. And a recent report by European scientists estimated that aircraft emissions were responsible for 1.2 per cent of total NOx.

But demand for air travel is forecast to double over the next two decades and, while technological advances should ensure that emissions increase at a slower rate, aviation's impact on local airport environments and on the climate looks certain to become more significant.

Manufacturers are acutely aware that while inter-gov-

ernmental organisations continue to discuss taxes and review restrictions to cut emissions, national and local communities are also taking action.

Zurich was the first airport to introduce a pollution tax. Sweden provides another example. It has introduced a scale of landing fee surcharges based largely on nitrogen oxide emissions. Airlines protest that such financial impositions could backfire. Barbara Ambrose, director responsible for environmental and infrastructure issues at the European Regional Airlines Association, says: "We are very much against surcharges because while the manufacturers are advancing as fast as technology will permit, penalties reduce the income of small airlines - and consequently their ability to invest in newer and cleaner aircraft. We don't see that as helping the environment at all."

Pierre Jeannot, director-general of the International Air Transport Association, takes a similar line, arguing that the putative European Union aviation fuel tax is unnecessary, "because the airlines are doing their damndest to reduce fuel consumption per unit of traffic, without any outside encouragement".

The purpose of such a tax, he says, would be to raise revenues for other purposes

and would have nothing to do with the environment. "To pretend otherwise would be patently dishonest."

Aware that pressure is mounting on all industries to cut pollution, manufacturers have been battling for some time to reduce the amount they cause. Airframe designers can do this by cutting weight and making aerodynamic improvements. Engine makers such as Rolls-Royce can improve combustion techniques. Some, including US manufacturer GE, have developed new dual annular combustors which are designed to perform at optimum efficiency when the engine is idling and when it is functioning at high pressure.

The GE90 engine, which powers the Boeing 777, has this kind of combustor. The manufacturer claims it emits about 40 per cent fewer oxides of nitrogen per passenger mile than older engines because it burns fuel in two stages rather than one and does so at lower temperatures.

Members of the European Airbus consortium have teamed up with research organisations in the UK, France, Germany and Spain on a programme called Mosaic, which uses special equipment on five long-range A340s to measure temperatures and levels of ozone and water vapour at altitudes where most airliners cruise. The aim is to provide hard evidence of the impact of NOx and other emissions. The second phase of testing was due to end this month.

The French Académie des Sciences has already concluded that there is no data which shows that the impact on the upper atmosphere is sufficient to cause concern.

Rival Boeing is participating in a similar study led by Nasa. It also claims there is currently no evidence that subsonic aircraft cause harmful effects to the ozone layer.

But all those working towards reducing pollution face the same, fundamental frustration: All their efforts will be negated unless governments tackle air traffic congestion. One estimate suggests that if they could wipe out flight delays, emissions would be cut by as much as 12 per cent.



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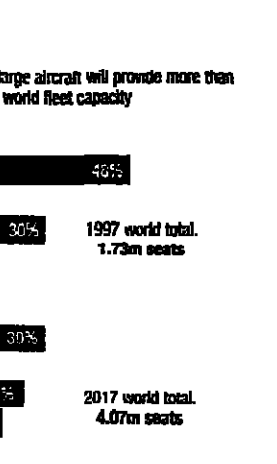
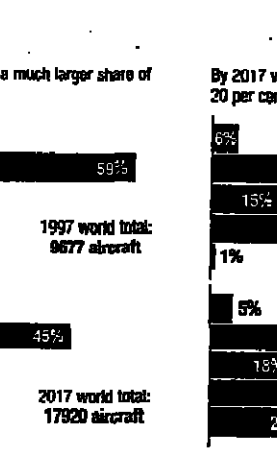
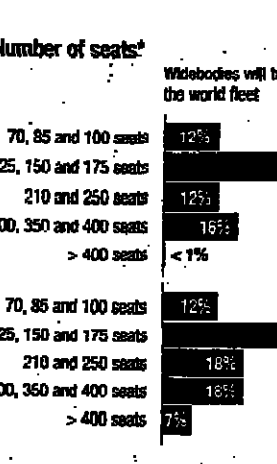
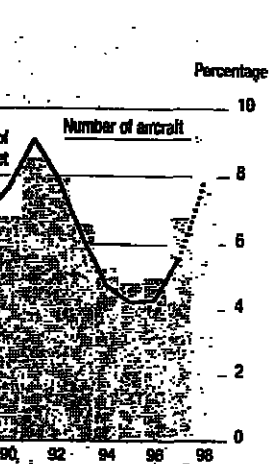
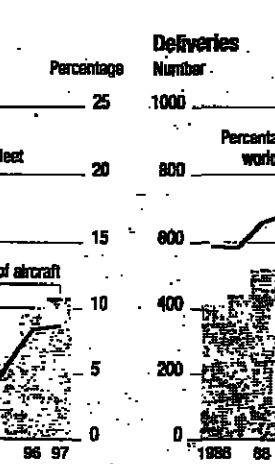
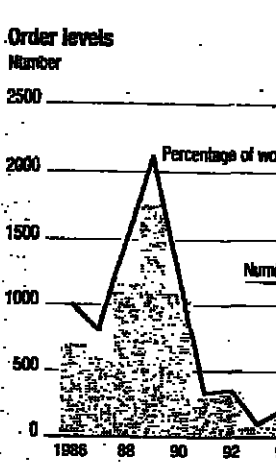
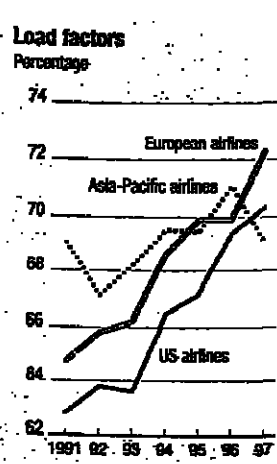
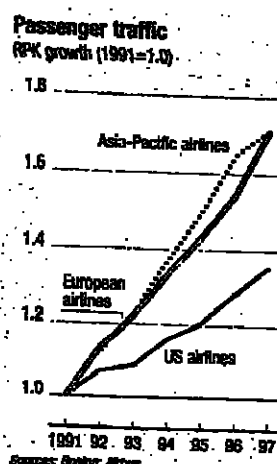
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### Desperately u

### Subject of sha public criticism







MARKET PROSPECTS • by Michael Skapinker

## Desperately unprofitable - even when times are good

Airlines hope global alliances will help them cut costs and carry more passengers

Should you invest in the airline industry? The folks at American Airlines say "No". Or at least some of them do. Robert Crandall, who retired as American's chairman earlier this year, used to say people who invested in airlines were "nuts".

Donald Carty, his successor, is slightly more upbeat. In the early 1990s, he says, aviation was "a business that wasn't really a business". Today, he says the airline industry is better managed. "That doesn't mean it's going to be the most profitable business in the world," he says.

The airline industry will never be as profitable as some of the computer manufacturers or the makers of Viagra, Mr Carty concedes.

"But there is a lot of potential upside, depending on what you believe." Which is not a ringing endorsement of the industry's prospects. This is not surprising. Aviation is a desperately unprofitable industry - even when times are good.

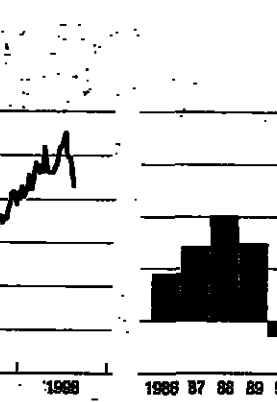
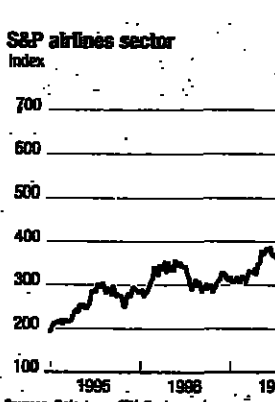
For the US aviation industry, these are the best times they have ever had. And yet in 1997, the US aviation industry's most profitable year, net earnings were only 5 per cent of revenues. The software, pharmaceuticals, advertising, financial services, clothing, railroads, telecommunications and entertainment businesses all did better.

The US airlines stock market performance has also been dire. If you had invested \$100 in the Standard & Poor's 500 index in 1989, it would have been worth \$256 in 1996. If, however, you had invested \$100 in the S&P airline index over the same period, you would have ended up with \$93.

Worldwide, the airline industry fares even worse. Last year, the world's scheduled airlines produced an operating margin of only 5.7 per cent, according to the International Civil Aviation Organisation (Icao). This was the airlines' sixth-highest operating margin since Icao began collecting the data in 1947.

The organisation does not yet know that the ratio of net earnings to revenues was, but expects it to have been better than in 1996. In 1996, net earnings accounted for 1.9 per cent of revenues.

"Why are airlines so unprofitable? Because deregulation in the US and Europe has led to increased competition, pushing airlines to cut fares. American airlines say that more than 90 per cent of its customers travel on some kind of discount fare. And airlines are expensive businesses to run. Aircraft are costly to acquire. In an industry where safety is paramount, they are also expensive to maintain.



The Asian crisis means there is little relief in sight for the worldwide industry. Airlines have responded by forming a range of global alliances, hoping to use them to increase the number of passengers they carry, as well as to cut costs. The biggest existing partnership is the Star Alliance, made up of United Airlines of the US, Lufthansa of Germany, Thai Airways, Scandinavian Airlines System, Air Canada

and Varig of Brazil. The longest-standing alliance is between Northwest Airlines of the US and KLM of the Netherlands. Delta Airlines of the US has a partnership with Swissair, Austrian Airlines and Sabena of Belgium. And British Airways and American Airlines have received conditional approval from the European Commission to form one of the world's most powerful alliances, which could also include Japan Airlines, Canadian Airlines, Qantas of Australia and Iberia of Spain.

In the US, several new domestic partnerships have been struck over the past year. American and US Airways have announced a marketing agreement. Northwest and Continental have forged close links and United and Delta have announced a link-up.

All the alliances, both

international and US domestic, have the same aims. First, to encourage passengers to travel with one of the alliance partners, rather than with competitors. The second, longer-term, aim is to cut costs by purchasing everything from aircraft to rubbish bags jointly.

Aircraft manufacturers have generally welcomed the airline alliances. Although they might be able to press for lower aircraft prices than individual carriers could, a healthier aviation industry should be good news for the manufacturers, too.

However, the Asian airlines' difficulties still worry the aircraft manufacturers. Philip Condit, chairman of Boeing of the US, the world's biggest aircraft maker, said earlier this summer that the Asian crisis "will be relatively long-lasting. I don't see any optimistic signs of a quick recovery."

Nevertheless, air traffic worldwide is continuing to grow. Airbus Industrie, the European consortium, which is the world's second-biggest manufacturer, forecasts that passenger traffic will grow at an average annual rate of 5.3 per cent over the next 10 years. In the decade after that, Airbus predicts that growth will slow slightly, but will still continue to average 4.8 per cent annually.

Airbus and Boeing both say that airlines are being cautious about their aircraft ordering. They do not want to find themselves with too many half-empty aircraft when the next downturn occurs. Nevertheless, traffic growth and the need to replace older, noisier jets, means that airlines are likely to order large numbers of aircraft over the next 20 years.

Airbus forecasts that over the next two decades, the worldwide airline fleet will increase from 9,700 today to 17,500. Airlines will buy 13,600 new and replacement aircraft over that period, with a total value of \$1,300bn.

PROFILE Federal Aviation Administration

## Subject of sharp public criticism

There can be few agencies within the US government which have drawn as much sharp public criticism, over so many years, as the Federal Aviation Administration. Perhaps only the lambasted tax collectors of the Internal Revenue Service can rival the FAA for congressional disapproval.

Take the recent report by the General Accounting Office, the investigating arm of Congress, which analysed the FAA's long-running programme to modernise its ageing air traffic control computer systems.

The FAA's strategy to overhaul its national airspace system began in 1981 with the aim of meeting the growth in air traffic, improving air safety and increasing the efficiency of air traffic controllers. The problem could hardly be more pressing. The FAA itself predicts the number of passengers on commercial aircraft will double to more than 1bn by the year 2015.

Since the early 1980s, the US government has committed more than \$25bn to the programme, but the GAO says many of the promised benefits have been delayed and the aviation industry's confidence in the agency has ebbed. Gerald Dillingham, the GAO's associate director of transportation issues, told a hearing of senators in February that the FAA's modernisation plans had "a problem-plagued past" which had forced it to pay for costly interim projects.

"Most recently, we found shortcomings in the areas of systems architecture or the overall modernisation blueprint, cost estimating and accounting, software acquisition and organisational culture," he said.

Under the leadership of Jane Garvey, the FAA's new administrator, that reputation for root-and-branch mismanagement may be changing. After a year in office, Ms Garvey has launched a broad range of measures to improve the agency's performance.

For example, Ms Garvey says she immediately found the agency's vital "Stars" programme to replace the computers and display systems in air traffic control towers. "When I came to the agency, it was apparent that we had not fully addressed the



Jane Garvey: launched a broad range of measures to improve the agency's performance

hole will take a great deal of money and time." Ms Garvey has taken the criticism on board. Welcoming the commission's recommendations, she said the FAA's management needed to be more directed towards serving its customers - the airline industry.

"The men and women of the FAA who provide around-the-clock daily civilian air traffic services for domestic and international aircraft operations need the operational flexibility and financial stability to respond to the dynamic industry they serve," she told senators in April. "We must be able to identify our costs, know what our customers need, and respond creatively and rapidly to those needs."

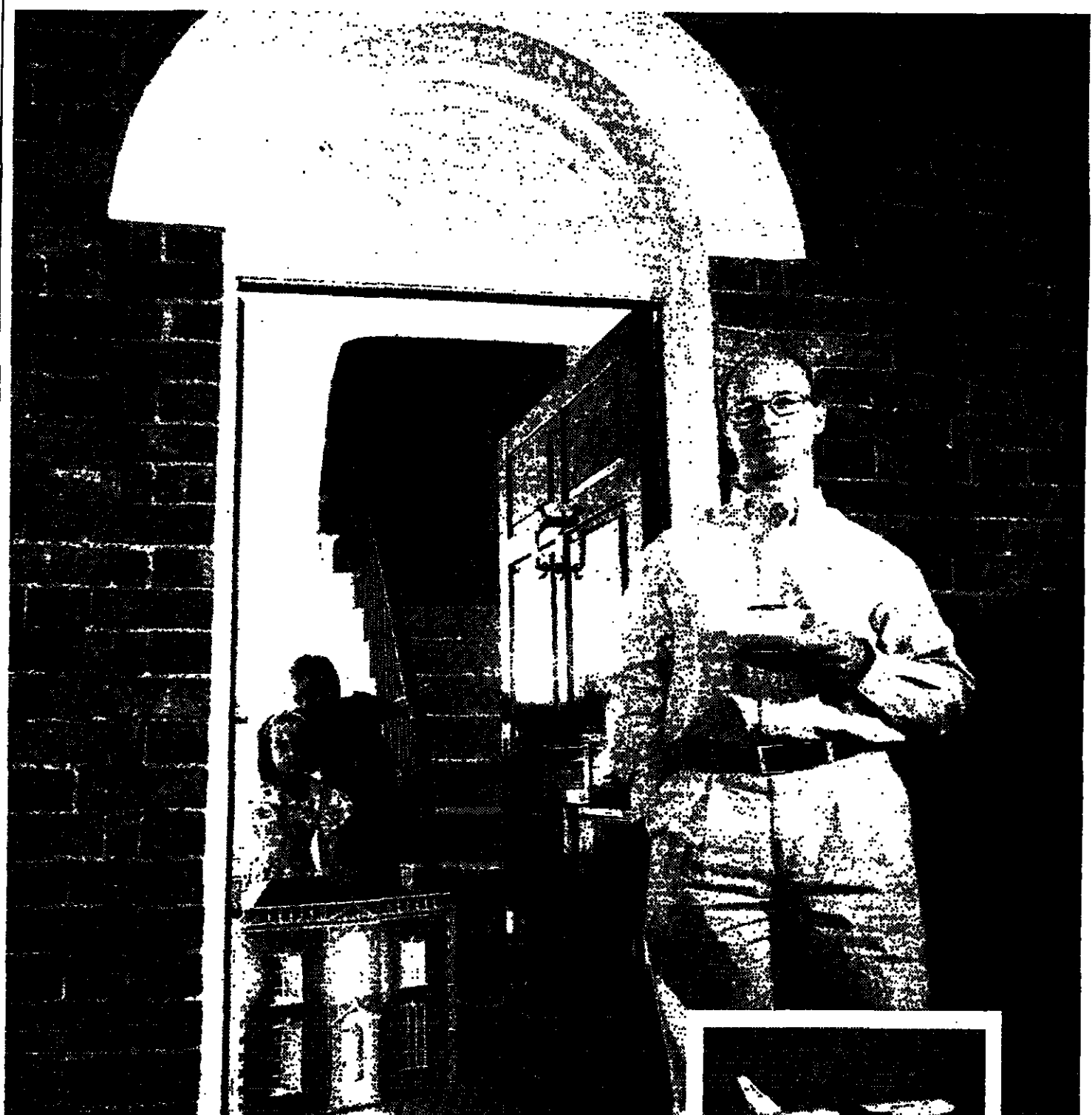
However, that may be easier said than done. While Ms Garvey is keen to move to a user-fee system, charging airlines for the service they receive, the FAA's early experience of identifying its own costs has proved controversial and unhappy. When the FAA started to charge over-flying fees to foreign aircraft passing over US airspace last year, the international outcry led to court action which overturned the fee system.

Although the FAA was entitled to charge fees, the appeals court ruled that the agency had used the wrong methods to calculate its charges. Without proper cost accounting systems in place, the FAA could not justify its own fees. Henry Price, FAA spokesman, said the FAA was still developing those systems.

But in one area at least - perhaps the most important one for the FAA - Ms Garvey has won plaudits from the industry and the public alike. This year has seen a raft of safety inspections of older Boeing 747s and 737s in the wake of the TWA 800 crash which killed 230 people over Long Island two years ago.

But some in the airline industry still suspect that the FAA's culture will take decades to reform. One analyst said: "You cannot turn a supertanker on a dime. They have a lot of ex-military people over there who are used to doing things in their own way. A lot of people have tried and failed to change that culture."

Richard Wolffe



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## 8 AEROSPACE The airlines

IN-FLIGHT ENTERTAINMENT • by Roger Bray

## A history of broken promises

Despite advances in technology, IFE has promised more than it has delivered so far

As travellers should soon be able to access the internet from their seats, downloading academic research, checking stock market prices, or catching up with the latest football scores.

At first glance it looks like a great idea. The technology is available now and the system could be up and running towards the end of next year. But can it be implemented at an acceptable price?

In theory, a passenger with a laptop computer could already surf the net while in flight, but it would be painfully slow and exorbitantly expensive.

However, if sufficient satellite capacity is made available for rapid data transfer, it becomes a practicable proposition.

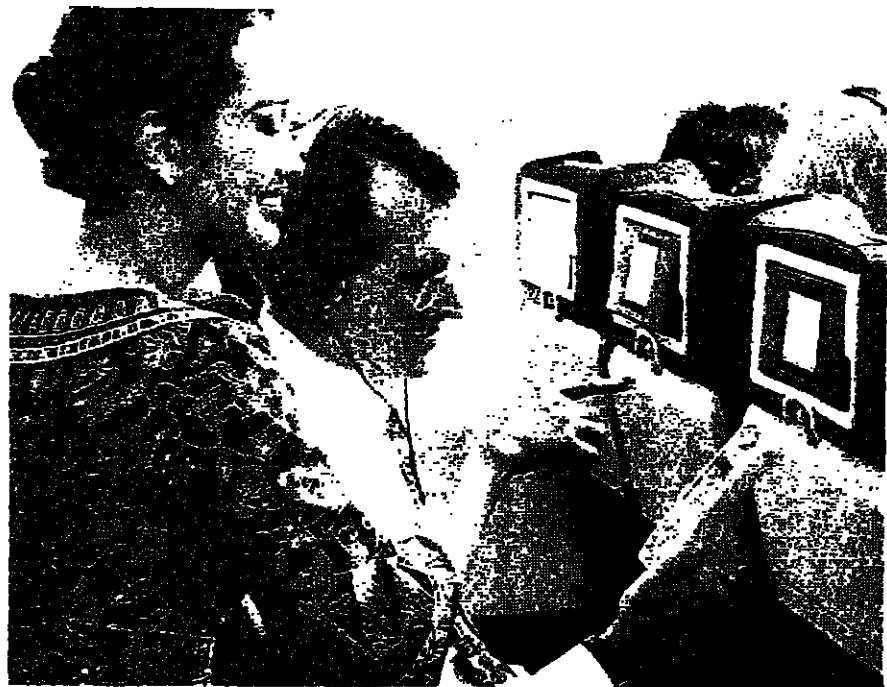
Optimists had hoped that the council of Inmarsat (International Maritime Satellite Organisation), which serves the shipping and aviation industries, would give its blessing to the launch of aeronautical high speed data at its July meeting.

Instead, the council, representing Inmarsat's 82 signatories, backed continuing technological development of the system - but demanded further proof of its commercial viability. Inmarsat wanted to know what impact would external events such as the Asian crisis have on demand.

Given the history of in-flight entertainment (IFE) so far, its caution was understandable, not least because Inmarsat is on the brink of turning itself from something akin to the UN into a market-driven, profit-oriented corporation.

It is a story, in the words of one airline executive, of "unreliable hardware, bug-ridden software, broken promises and unhappy passengers".

Some airlines trying to install complex, interactive



Cabin management interactive video is available for Singapore Airlines economy class passengers

systems have run into serious reliability problems and have sought to fill the gap by offering customers handheld Sony Video Walkman units as a stop-gap measure. At least one carrier, having trumpeted the impending launch of electronic gambling, was forced to abandon it.

British Airways has started installing a Rockwell-Collins system which will offer a choice of 18 channels to first class and business class customers and 12 to travellers in economy, but which can be upgraded to incorporate interactive entertainment and video-on-demand when the airline is satisfied that the equipment will survive the robust conditions of flight.

Video-on-demand allows passengers to select, stop and start a movie at will. It has been described by one commentator as "the holy grail of IFE". But so far it has been installed by only a handful of carriers.

Swissair and Singapore Airlines have introduced video-on-demand and interactive games. Entertainment offered by Swissair includes a choice of 14 films which passengers can view on

demand and two more which are controlled by cabin crew. Its passengers can also gamble, using a touch-screen system - although not on flights to and from the US, which still forbids gambling in the sky.

SIA has been testing video-on-demand and interactive entertainment on a Boeing 747 flying between Singapore and Tokyo.

The technology has been developed by Matsushita, which provides the airline's existing multi-channel systems. There is a choice of 15 movies. Passengers can also play any of 10 Nintendo computer games and the carrier recently extended its trials by adding electronic gambling.

Experiments with the transmission of live television to aircraft are expected to continue. Earlier this year, passengers on a Boeing 767 operated by US carrier Delta were able to watch part of the American football Superbowl. It was part of a long-running experiment, started by the airline in 1986 in conjunction with Hughes Avicom, which provided the hardware, and satellite company DIRECTV, which also recently agreed a deal to

relay news and other live programmes to business jets.

When trials began, reception and reliability were patchy and it was not possible to transmit more than one channel simultaneously.

Things have improved, says Rockwell-Collins, which took over Hughes Avicom last year. Now it is possible to transmit 14 channels at the same time.

A new series of trials on the same Delta jet, in which passengers will be able to choose what to watch from a menu of live broadcasts transmitted to screens at every seat, is expected to start later this year.

Robert Walzer, director of business development at Rockwell-Collins Passenger Systems, says: "Most other airlines are waiting to see what happens with Delta trials but we may also do some tests with one or two other carriers."

Trials of the new system were being extended to bring the service to every seat on the aircraft, with passengers choosing what to watch from a menu of channels displayed on their screens.

Against this background, the route to rapid airborne internet access may look

positively smooth. Passengers most likely to benefit in the short term will be premium fare payers in first or business class cabins, some of which are already fitted with laptop points.

The system could also be used by airlines and aircraft manufacturers to send information to pilots.

Inmarsat is trying to leap ahead of currently accepted transfer speeds. There are two existing ways of sending data - circuit mode, which uses links also designed for voice traffic, is transferred at up to 4.8 kilobits, and packet mode, which is designed specifically for data transmission, works at about double the rate. Inmarsat is proposing 64 kilobits.

David Cooley, its aeronautical services marketing manager, says: "Current speeds are all right for cockpit communications but they didn't envisage demand from passengers to use the internet. We have decided to take the bull by the horns and enhance the data rates, looking at requirements for two to three years hence."

"Typically, aircraft use six simultaneous channels, one or perhaps two for the cockpit - one of which would be packet data - the rest circuit mode."

"Under the proposed new system, if five passengers wanted to plug laptops into data ports they could receive data at 64 kilobits each, which would be faster than the average desktop."

"The price per minute is still being appraised. It depends on what passengers are prepared to pay. The average price of an in-flight telephone call at present is around \$8 - but even if it stayed that high you would be getting information extremely quickly. And bear in mind the amounts some hotels charge for international telephone calls."

Inmarsat's council was due to meet again this month and again in November. If it gives the final nod, aeronautical high speed data may help restore faith in the bright future of IFE which - so far at least - has promised more than it has delivered.

LIVERIES • by Roger Bray

## Image-makers have designs on airliners

Many airlines are unadventurous because they fear alienating their passengers

Brave and forward-looking or fazed and unadventurous? Few aviation questions since the last Farnborough air show have filled as many column inches as British Airways' decision to give its fleet a radical new look.

Yet nobody should be surprised that, even now, the dust has not settled. As long as airlines are seen as symbols of national virility, such abrupt departures will provoke hostility among traditionalists.

This is not an issue peculiar to Britain, says Richard Ford, European creative director for American-owned branding and design consultants Landor. "The controversy has probably been exaggerated here by the Thatcherite, anti-European lobby. But you might get the same sort of reaction in other European countries where nationalism is an issue. The Italians or the French might get pretty upset if you took their national colours off the tails of their aircraft."

Small wonder, then, that many airlines are unadventurous about changing their liveries dramatically. But sometimes they have little choice. Already this decade at least two carriers have needed to respond sensitively to political change.

One was South African Airways, which sought to shake off associations with the apartheid era. Reactionary whites might have been less than ecstatic with its decision to drop the springbok, but the airline headed off objections by asking the people for their ideas. More than 90 per cent of the designs suggested were variations on the flag.

Applying such cosmetics takes time. Changes are

made as aircraft go in for overhaul. Some two years on, about one third of the airline's fleet is still operating in the old livery.

The other carrier was Cathay Pacific, which wanted to encourage consumers to think of it as an Asian airline. It moved to a form of calligraphy design. Mr Ford, whose firm designed it, says this "speaks to the consumer of Asia without being seen as specifically Chinese, Japanese or Korean."

There are other, less earth-shaking motives for airlines to change their looks. The colours which BA is now shedding, which were designed by Landor, were adopted to mark its privatisation, for example.

Air Canada altered its livery for the same reason. A spokeswoman says: "We were privatised in 1989, but in the early 1990s research showed that too many people still thought of us as a crown corporation, so we wanted to create the image of a go-ahead company."

Tails were painted green to represent the Canadian forests, the maple leaf was made to look less stylised and more natural - and the airline's name was restored from lower case to capital letters.

Aer Lingus was persuaded by designers to adopt a more authoritative look, with a deeper green and a more natural shamrock, in order to distinguish itself from low-fare airlines which were snapping at its ankles.

And Chilean carrier LAN, which unveiled a new livery earlier this year, needed to make its jets look their age. Vladimir Marich, who worked on the design at Diefenbach, Elkins, Davies, Baron, says: "They had one of the youngest fleets in the world but their previous livery made them look like they were made in the 1950s or 1960s."

Some can start with a clean sheet. From its launch, UK airline easyJet has dis-

played its reservations telephone number on the fuselage of its jets - the inspiration not of outside consultants but of Tony Anderson, its head of sales and marketing.

"Because we are a direct sell operation," says a spokesman, "getting our number across to the consumer is all important." It seems to work. In one week this summer, calls taken on the new telephone number being stuck to the sides of aircraft amounted to about 14 per cent of its overall total. Now easyJet has started displaying its web address on aircraft.

More recently the brand consultancy Wolff Olins was tasked with creating an image for Go, British Airways' recently launched, Stansted-based, budget operation. Jane Speller, account director, says: "We wanted something which would feel very generous."

"We wanted it to look as though the whole word, Go, was too big for the tail and we added another word. On one aircraft it is Go Today, for example, on another Go Now - or Everybody Go. We wanted people to feel that if they decided to go away we could get them there easily."

What now for British Airways itself? The airline has denied strenuously that it intends to ditch its contentious new look, but concedes it may do a bit of tweaking.

John Sorrell, chairman of Interbrand Newton and Sorrell, which designed it, says: "The customer acceptance rate has been incredible since it was launched but it is higher abroad than in the UK. That is perhaps not surprising given all the headlines about dropping the Union Flag. But when people in Britain understand what the aim is they are more supportive."

In any case, he says the flag has not disappeared completely. Its red, white and blue have been incorporated in the livery's main symbol.

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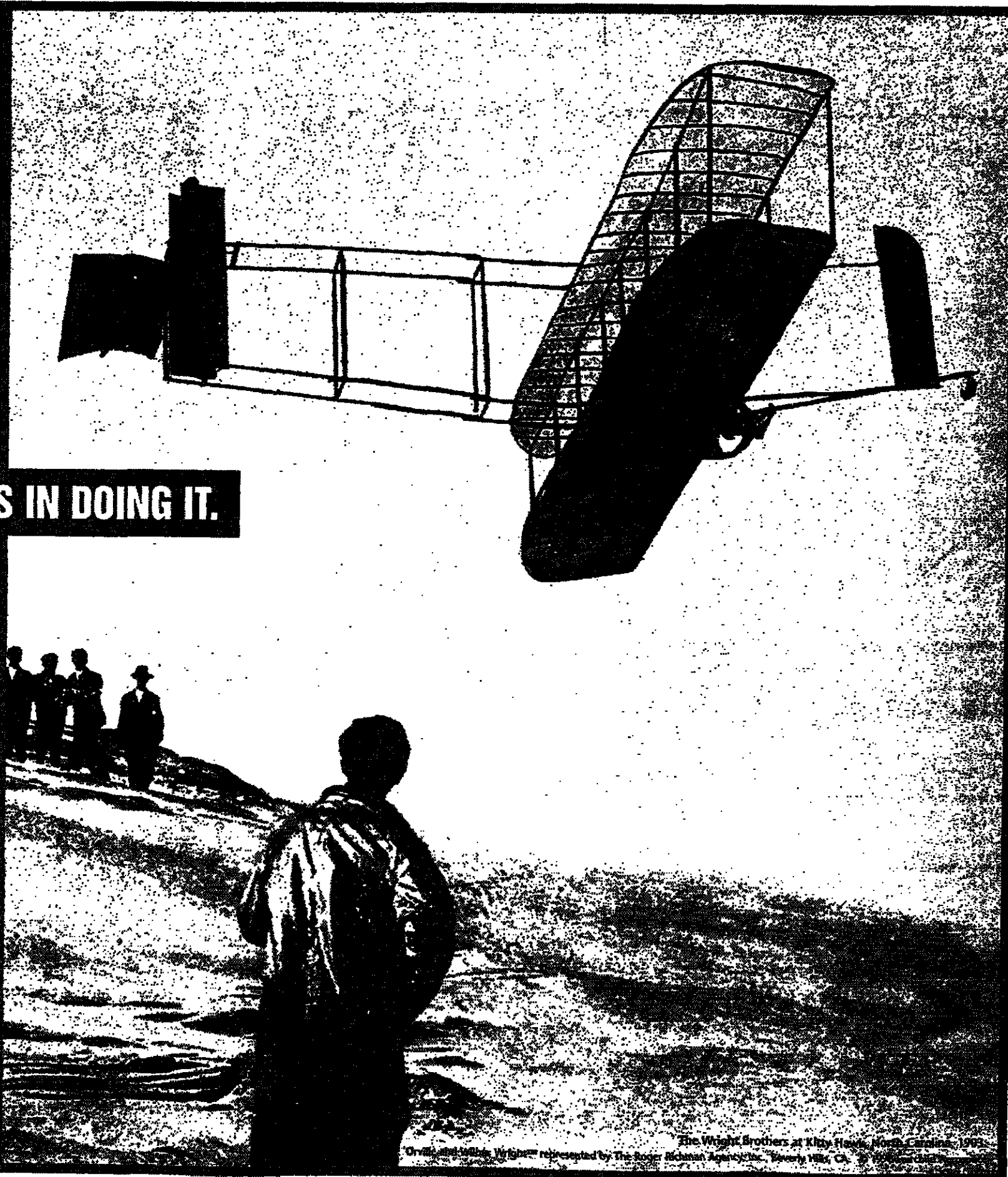
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MISSION: 328JET

This is  
by Lockheed

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AIRPORTS • by Michael Skapinker

## Private sector transforms problems into profits

Governments are looking to the private sector to finance airport improvements

Imagine every man, woman and child in a medium-sized country – say the UK or France – flying around the world every year. That gives you some idea how many passengers the world's airlines carry annually.

The airlines measure their work rate in revenue passenger kilometres (RPKs), which is the number of people they transport multiplied by the distance they carry them. The total figure for all the world's airlines is currently 2,800bn RPKs annually. That is 10 times higher than 30 years ago.

Twenty years from now, airlines are expected to carry nearly three times as many people as they do today.

Where will all these people board their aircraft and where will they land? Who will build the airports to accommodate them all? New airports are being built, of course. Hong Kong and Malaysia both opened new airports this year.

Elsewhere, however, there are fierce environmental objections to new airports, terminals and runways. Schiphol airport in Amsterdam has been instructed by the Dutch government to limit flights and restrict night-time operations. The result is that KLM, the largest Dutch carrier, expects profits to be reduced by tens of millions of guilders this year.

London's Heathrow, Europe's busiest airport, is struggling to win permission to build a fifth terminal, which will increase its annual capacity by 30m passengers. The proposal has attracted strong opposition from environmental campaigners and local authorities. The public inquiry into the fifth terminal, which began in May 1995, is the longest ever held in the UK.

Even when permission is granted to build or expand airports, few governments have the ability, or desire, to pay for them. Chek Lap Kok, Hong Kong's new airport, did rely largely on state financing; government funds represented about HK\$40bn of the HK\$70bn needed to build the airport.

Increasingly, however, governments are turning to the private sector to finance improvements or expansion

of their airports, or to improve the way they are run. From Argentina to South Africa, from Germany to Australia, governments have sold off, or are selling off, large chunks of their airports to private sector companies.

The need to reduce government spending is one motivation. Another is the perception that passengers are demanding a better level of service than public sector owners can provide. A third is the realisation that airports can generate revenues from activities which go beyond the business of moving passengers on and off aircraft.

In particular, airport owners have begun to see that their facilities can be turned into shopping malls. What more could retailers ask for than being presented with

thousands of well-heeled customers who are forced to spend an hour or two wandering past shop windows before boarding their flights?

One of the first airport managers to understand the implications was Sir John Egan, chief executive of BAA, the privatised group which owns seven UK airports, including Heathrow, Gatwick and Stansted in London.

The charges that BAA makes to airlines at its London airports are strictly regulated. The group needed an alternative source of revenue. "Once I saw that 60 per cent of people passing through Heathrow were in the A and B social groups, I thought: this is the place to sell high quality goods," Sir John says.

In 1997-98, for the first time, more than half of

BAA's revenues came from retailing. By contrast, only 30 per cent of revenues came from charges to airlines for landing and other services.

long considered to be the central purpose of an airport.

BAA was not alone in discovering the importance of shopping and other activities. Schiphol was an early retailing pioneer. It has also introduced other activities to the airport, such as a casino and a virtual reality golf centre. Airport Group International, a long-established US group, was quick to learn the lesson and expand its activities at the airports it operated. The three are among the principal contenders in any airport privatisation.

BAA runs Indianapolis airport in the US. Melbourne in Australia and has a control-

ling interest in Naples. Schiphol runs Brisbane airport and leads a consortium which last year won the contract to rebuild and operate the international arrivals building at John F Kennedy airport in New York. Construction should be completed by 2001. The management contract, in which Schiphol has a 40 per cent share, extends until at least 2015.

The JFK contract illustrates an important point about private financing of airports: some city and national governments have managed to tap sources of private finance without selling the airports outright.

At London's Luton airport, for example, the Labour-controlled borough council had set its face against privatisation. Because the airport needed £170m in new invest-

ment, however, the council had little choice but to seek private sector financing. Instead of selling the airport, it called for bidders who would be willing to fund the investment and run the airport for 30 years. AGI was named as preferred bidder.

Airports in the US have so far resisted the privatisation wave but, even there, some city government owners have asked private sector partners to help up the airports' generally uninspiring retailing facilities. One of the first was Pittsburgh airport, which asked BAA to run its retailing facilities in 1992. The airport now boasts the largest airport retailing complex in the US, with 100 outlets, including a health and fitness centre. This year, Newark airport also appointed BAA to manage its retailing activities.

AIR TRAFFIC CONTROL • by Michael Donne

## Delays continue to be a sore point

Eurocontrol argues that European integration is slow because of its great complexity

As the volume of European air traffic continues to increase, delays continue to be a sore point not only with air travellers, but also with the airlines themselves. Travellers are generally not interested in why delays occur, they just object vocally to them occurring at all, preferring their journeys to be entirely seamless and trouble-free. The airlines, at the sharp end of travellers' complaints, do not hesitate in passing the blame back to the airports and the ATC authorities.

The Association of European Airlines (AEA), representing 27 of the biggest airlines in Europe, points out in its 1998 Yearbook that 19.5 per cent of European flights were more than 15 minutes late in 1997, a full percentage point worse than in 1996. It

points out that delays have persisted into 1998, with the delay rate for European flights deteriorating in April to more than 21 per cent of departures, and the figures for midsummer yet to come.

It adds that the long-term trend in delays "clearly points to a climb back to levels of the late 1980s, which were rightly seen as reaching crisis dimensions, and which precipitated a major political process and numerous initiatives to improve European ATC, which produced short-term benefits but ultimately no long-term solutions."

Moreover, in contrast to the two previous years, 1997 was not distorted by high levels of delay in the winter months, but instead "displayed a pattern of high delay throughout, with a notable peak in the July-September period."

The AEA attributes 55 per cent of the winter delays and about 65 per cent of those in the summer "to infrastructure-related causes, with delays likely to fall more

within the airlines' own control accounting for one-third of the total."

Of those infrastructure causes, some were undeniably the result of difficulties at airports, with congested terminals and inadequate gate facilities. The airports themselves argue that they are doing what they can to solve such problems, but face severe difficulties generated by increasingly tough environmental constraints imposed by governments (such as intensified curfews on night jet movements, and lengthy delays in winning planning approvals for new terminals and runways. The long battle, still in progress, to win approval for Terminal 5 at Heathrow, is cited as an example).

But most AEA ire is reserved for ATC problems. It argues that European ATC is still much too fragmented, with 49 ATC centres, 22 operating systems, 31 national systems, 18 suppliers of hardware, and 30 programme languages.

The AEA regards the cur-

rent plan of the governmental European Civil Aviation Conference (ECAC) to harmonise and integrate existing systems as wrong, claiming that it perpetuates existing inefficiencies at some ATC centres and such problems as circuitous routings. It believes that instead there should be "a single sky" for Europe.

The ATC authorities nevertheless hit back hard. Eurocontrol, the European Organisation for the Safety of Air Navigation, representing 27 countries, says: "The reality is that total traffic within Europe increased from 7m flights in 1986 to 7.5m in 1997 (a rise of 7 per cent)." Despite that increase, it says: "The total amount of delay resulting from imbalance between traffic demand and ATC capacity remained at the same level as that of 1996, whilst furthermore the average delay per flight actually decreased."

Eurocontrol argues that such results are due to the progress being made with the European ATC Harmoni-

sation and Integration Programme (Eatchip), and points to the introduction in March, 1996, of the Central Flow Management Unit (CFMU) based at Haren near Brussels, as a big step forward in the control of all air traffic flows throughout Europe, "making a crucial contribution to the more efficient use of available ATC capacity and delay reduction". It also points out that "the integration of ATC in Europe is, owing to its extreme complexity, a long-term target".

Furthermore, Eurocontrol is embarking on what is called the ATM 2000+ Strategy – the development of a comprehensive gate-to-gate orientated air traffic management (ATM) plan for the period through to 2015, aimed at bringing all elements of the European air transport system into equilibrium "by considering airport capacity, arrival, departure, en-route procedures, and the integration of systems on the ground and in the air" while also taking

into consideration "the people who provide and use the services as a whole".

New individual ATM technologies are being developed for this purpose, such as Reduced Vertical Separation Minima (RVSM) which reduces the current vertical separation between aircraft from 2,000ft to 1,000ft in the upper airspace between 29,000 and 49,000ft, substantially improving the accuracy of aircraft navigation through what is called Basic Area Navigation (B-NAV), and making more Flexible Use of Airspace (FUA). All of these developments, says Eurocontrol, "will do much to relieve the acute congestion in European airspace, despite the relentless growth in traffic".

Moreover, a new international Eurocontrol Convention, signed last year, which includes creation of an independent Performance Review Commission, will also help to push forward the essential improvements in European ATC.

All of this is also part of



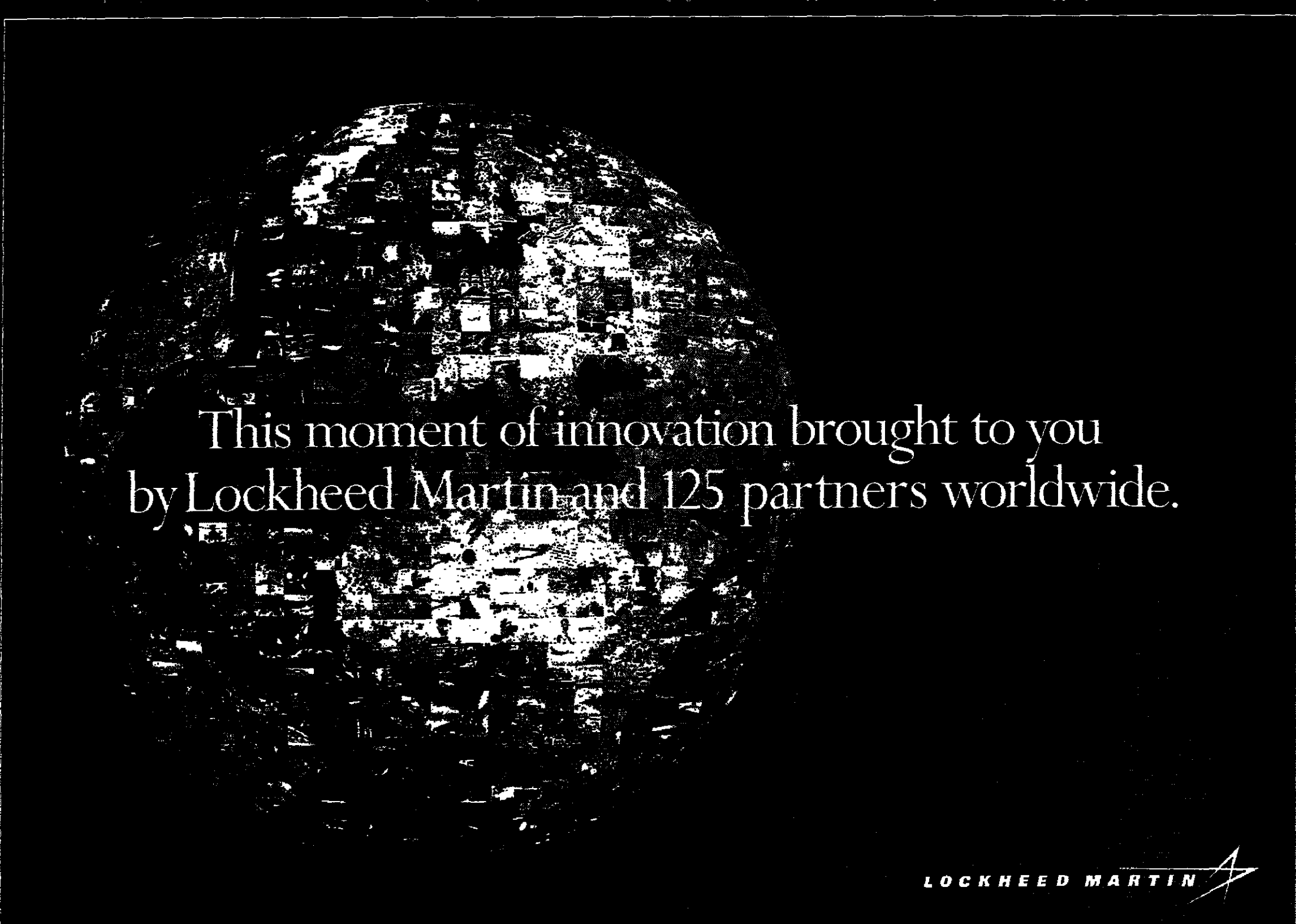
Air traffic control authorities are blamed for delays by the airlines

the European contribution to the overall wider global development of what is called the Future Air Navigation System (FANS), otherwise known as Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM), a multi-billion-dollar programme sponsored by the International Civil Aviation Organisation to cater for worldwide air traffic growth through the early years of the next millennium.

It is into this overall picture that the prospect of privatisation for the UK's own National Air Traffic Services

(NATS) is being injected. This is creating strong opinions: some, such as pilots and air traffic controllers, are doubtful about it, if not openly opposed. Others, such as the top management in NATS itself, believe that privatisation is the best way to enable the organisation to raise the capital to pay for the expensive and far-reaching technological developments and new facilities that lie ahead. Discussions on the plan are continuing, but it may be some time before final decisions as to when and how NATS' privatisation occurs.

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## 10 AEROSPACE Defence

OVERVIEW • by Alexander Nicoll, Defence Correspondent

## Europe's aerospace groups plan mega-merger

The three biggest companies are taking the lead in an industry-wide re-structuring

Europe's biggest aerospace groups have a project under way to form one of Europe's largest companies by merging with each other.

Their ambition may never be realised, even though at present there is strong momentum behind it. The merger will be extraordinarily difficult to accomplish and the new group will need a tough management ready to take painful decisions. But if these decisions are taken, the new company will be a formidable one, able to compete with the world's best in advanced technologies.

Those most closely involved are the three largest, British Aerospace, Aerospatiale of France and Daimler-Benz Aerospace of Germany. But the restructuring of aircraft-related defence industries touches other companies such as Dassault Aviation of France, Casa of Spain, Alenia of Italy, Saab of Sweden - in short, all west European companies involved in making aircraft.

Others whose business is making systems for aircraft, such as GEC of the UK and Lagardere and Thomson-CSF of France, are much more

than interested observers. Indeed, Lagardere has been chosen by the French government to restructure Aerospatiale by merging its defence interests with the state-controlled company as part of its privatisation.

The restructuring of the industry is occurring because the times for manufacturers of weapons systems are changing in a number of ways.

Since the cold war, defence budgets in the western world have been slashed. However, governments have been reluctant to cancel big procurement projects, for reasons both of sound defence and domestic political pressure. Cancellations mean job losses and erosion of a country's industrial and technology base.

This means governments are under strong pressure to obtain better value for money in defence procurement.

Meanwhile, the US defence industry has gone through an extraordinary restructuring process, with deal after deal removing old-established companies and grouping their assets with those of others. This has left just three companies - Boeing, Lockheed Martin and Northrop Grumman - as front-line aircraft manufacturers.

While political and other constraints have restricted the scope for true rationalisation in the US as well, there is no doubt that Boeing and Lockheed Martin are formi-

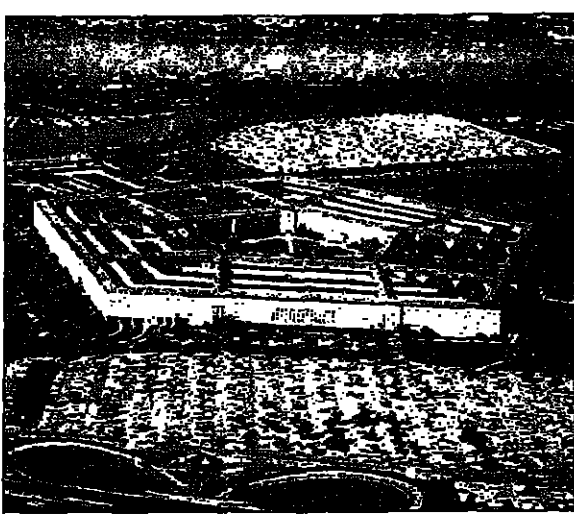
dable powers in the aircraft industry. They are competing for their share of a Pentagon procurement budget which, including research and development, is still about \$80bn this year even after cuts.

In Europe, many companies are fighting for their slice of a much smaller budget. In 1996, European NATO countries spent \$47bn on procurement and research and development.

The writing on the wall could hardly be larger: the European aerospace and defence industry must consolidate to achieve the economies of scale in a shrinking market. If it does not, European defence procurement agencies will inevitably find themselves forced for budgetary reasons to order American equipment.

Most of the principal companies involved have long recognised the need for rationalisation. Various plans have been under consideration for some years. Until recently, however, it was assumed that the restructuring of Airbus, the civil aircraft consortium, into a corporate entity would take place before anything else. Aerospatiale, Dasa, BAE and Casa are all partners in Airbus.

Since late last year, however, the pace has accelerated considerably. In December, heads of government of Britain, France and Germany issued an unusual statement calling on BAE,



The Pentagon procurement budget is about \$80bn this year

Aerospatiale and Dasa to draw up a plan by the end of March for restructuring the industry. Their message was: "rationalise or die."

The three companies duly reported back. Although their response has not been published, they agreed to unify into a single company with a single management structure, quoted on stock markets.

The main obstacle to this was the French government's dual role. As a buyer, it wanted a restructured, more efficient industry. But as the owner of a state-controlled company in a country where the state and business are intricately bound together, it had different interests.

In July, Lionel Jospin, the

prime minister, hit a large bullet when he announced that Aerospatiale would be merged with the Matra defence interests of Lagardere, and that the state would cut its stake to as little as 46 per cent.

For BAE and Dasa, this is still not enough. They both welcomed the large shift in French policy but made clear that they wanted the company with which they would merge to have no state holding at all. Otherwise, the French government would be bound to have an influence on the running of the future group, they believed. This would be unacceptable to their shareholders and would undermine the private sector philosophy which they feel is

vital for long-term profitability.

Nevertheless, the French move seemed likely, with prodding from governments, to spur closer negotiations on a three-way merger. There can in any case be no doubting the impetus within BAE and Dasa to push rationalisation forward - and if Aerospatiale does not move fast enough, the British and German companies seem likely to discuss terms for a two-way deal before long.

A merger between the two biggest companies is far from being the only deal in town. BAE recently bought a 25 per cent stake in Saab of Sweden, and is negotiating similar deals with Casa and Alenia. GKN's Westland helicopter division is to form a joint venture with Alenia's sister company Agusta. Other related sectors, such as missiles and space systems, require rationalisation which is to some extent dependent on the outcome of the larger discussions.

The companies by themselves cannot restructure the way weapons are bought. Defence ministries have recognised that they have to alter procurement practices. In a letter of intent in July, the defence ministers of six countries - Italy, Spain and Sweden had been added since December's tri-lateral initiative - agreed to work towards removing export controls which hinder cross-border companies; to

eliminate wasteful duplication of R&D spending; and to sign "security of supply" agreements which would enable them to allow production of items to be stopped within their own country with the assurance that they would always be supplied from elsewhere.

On a larger scale, there will be pressure on European governments to harmonise procurement much more closely so that their suppliers can achieve economies of scale. While there are some examples of successful collaborative projects, such as the Tornado aircraft, they are also subject to long delays and pull-outs.

With France deciding to go its own way when the Eurofighter was being considered, western Europe now has three different fighter aircraft coming on stream: Eurofighter, France's Rafale and Sweden's Gripen.

To some extent, companies can meet the needs of this wide variety of customers by adopting more practices from commercial industry. Methods of production of military aircraft have been modernised substantially in the past five years, with the arrival of computer-aided design and production techniques, and can still go further to make the modernisation industry-wide. This saves money both in production and maintenance. Modular designs can even help to meet separate customer

needs on essentially the same aircraft.

All this will really only be driven forward, however, as the companies bring together order books which will take a new group well into the next century. Some in the industry believe the process of creating a European aerospace and defence company will overtake the Airbus restructuring. If the partners in Airbus merge, its formation as a company will be much easier - it will simply be a division of a much larger company. But that view may not be acceptable in France, which is tied more heavily to Airbus than to military aircraft.

That will be just one of many complex negotiating steps along the road over the coming months.

What is most important to each of the companies involved is that they retain their domestic customer base - essentially, their own ministry of defence - while gaining access to broader markets through the merger.

This will enable each company and its government to argue that something is gained in return for the jobs lost through rationalisation. The new company has to be British in Britain, French in France and German in Germany. If not, it will lose the political advantage which its constituents have in winning domestic orders. To create a structure which achieves this will be the biggest challenge.

JOINT STRIKE FIGHTER • by Alexander Nicoll

## Boeing and Lockheed Martin race for \$100bn prize

The battle is so important that neither company can contemplate losing it

If the Pentagon and US industry have their way, the Joint Strike Fighter will become the world's standard combat jet aircraft in the first half of the 21st century.

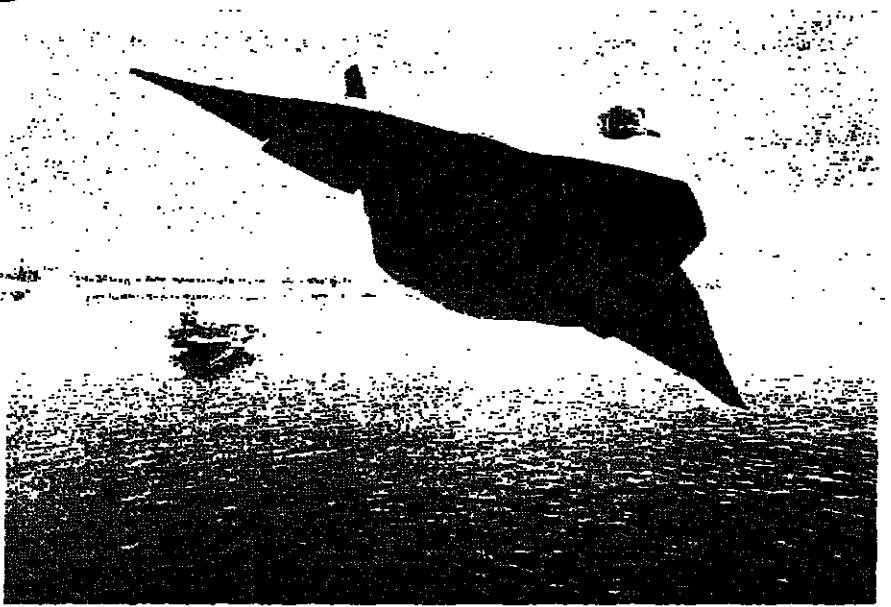
If Europe has its way, the Eurofighter will give its US rival more than a run for its money, much as Airbus has risen to challenge US domination of the world's commercial aircraft industry.

The JSF programme is by far the most important US procurement programme currently under way, in terms of its significance for the US armed services, the aerospace industry and US procurement practices.

Under current plans, however, it is just one of several fighters which will be emerging from US aircraft factories in the early years of the next century.

While four of the largest European countries are putting most of their resources for combat aircraft into Eurofighter, the US still has its eggs in several baskets.

Lockheed Martin and Boeing are collaborating on the F-22 Raptor, the state-of-the-art air superiority stealth fighter which will replace the F-15 and is due to come



Artist's impression of Boeing's JSF. The "flyaway" price for a carrier-based version is pegged at \$38m

into full production in the early years of the next decade.

The main assembly line is at Lockheed Martin's plant in Marietta, Georgia. The US Air Force plans to buy 338 F-22s at a total cost of \$34.7bn.

Boeing, at the former McDonnell Douglas plant in St Louis, Missouri, is making F/A 18 single-seat E and two-seat F Super Hornet aircraft for the US Navy, which intends to buy more than 500 of this modernised and larger but not stealthy - version of the previous C and D models.

Northrop Grumman is an important sub-contractor. Lockheed Martin's Fort Worth, Texas, production line of the F-16, which has won more than 4,000 sales, is still open and turning out updated versions for export customers, recently winning a keenly contested order from United Arab Emirates.

But the biggest contest will be over the JSF, a \$100bn programme to make the F-16's successor, and a straight fight between Boeing and Lockheed Martin. Initial orders are at present estimated at more than 3,000 aircraft.

Each company has contracted to produce two concept demonstrator models by 2001, when the Pentagon is due to make the choice.

So important is this battle that neither company can contemplate the possibility of losing it.

However, the expectation in the industry is that, whichever wins, the other will also be involved in building the aircraft, because the Pentagon's commitment to competition is such that it could not allow either Boeing or Lockheed to suffer a grievous blow to its business.

The JSF represents a new way of doing things in several ways.

The first is unprecedented co-operation between the US services. It will replace a number of aircraft, including AV8B Harriers, now in service with three US services: the Air Force, the US Navy, and the Marines. The intention is that the different versions of the aircraft will have at least 90 per cent commonality.

The Pentagon estimates that in the development stage alone it will save \$18bn in 1996 dollars through this joint approach. Total

through-life costs could be less than half what they would be if the three services bought separate aircraft.

The JSF may well have a fourth initial customer in Britain's Royal Navy. The UK is contributing \$200m towards development costs and will consider the JSF as a candidate for its Future Carrier-Borne Aircraft to go into service on new aircraft carriers in about 14 years' time. British Aerospace is partnering Lockheed Martin in the project.

The second new element is the Pentagon's insistence on a relatively cheap, "affordable" aircraft.

It has stipulated that the "flyaway" cost excluding development must be no more than \$28m for a standard land-based aircraft and \$35m for a short take-off and vertical landing (STOVL) version and \$38m for a carrier-based version.

This means the competitors have to design an aircraft with as much capability as possible within the price.

Both sides make much of the extent to which they are using "lean production"

techniques to reduce development costs, increase the likelihood of first-time performance, and streamline maintenance.

Frank Stiskus, programme manager for Boeing in Seattle, says the company is using design software and other techniques it created for the 777 commercial airliner. Frank Cappuccino, Lockheed programme manager in Fort Worth, says the company is revamping production through computer modelling, speeding up production of parts and using inventory reduction techniques.

The third new element is the Pentagon's use of the JSF programme as a model for its reform of procurement processes, intended to streamline the bureaucracy, shorten procurement cycles, and get better value for money. The Pentagon has made stipulations about essential performance characteristics and has left the competitors to work out how to meet them.

Nevertheless, with no JSF aircraft yet having flown and the first model not due to enter service until 2006, past experience suggests plenty can happen before the JSF's future is secure. If it does go ahead, it may be the last piloted combat aircraft to be built in large numbers - since considerable investment is now going into developing unmanned aircraft.

US DEFENCE RESTRUCTURING • by Alexander Nicoll

## Further consolidation possible

There is still room for manoeuvre among some of the second-line suppliers

At what used to be the headquarters of McDonnell Douglas in St Louis, Missouri, there is a small museum showing models of all the aircraft made by the company. But the signboard outside now says Boeing, which acquired McDonnell Douglas last year. The museum is planning to add some models of Boeing aircraft.

The change of identity is no less awkward for what used to be Hughes Aircraft, then became part of General Motors and is now part of Raytheon, previously its close competitor in the missiles business. Everywhere, people are having to get used to new identities as a result of the \$62bn worth of mergers and acquisitions in the defence industry over the past five years.

This year, the government decided the consolidation of the largest companies had gone far enough when it blocked Lockheed Martin's \$11bn acquisition of Northrop Grumman. It said it wanted to keep three inde-

pendent aircraft makers, even though Northrop's main work nowadays is as a sub-contractor to the other two, Boeing and Lockheed. It did not want Lockheed to devour the competition for electronic systems which give an aircraft its edge.

The consolidation has produced a few very large defence contractors and a number of second-line suppliers. Among the suppliers there is still scope for further consolidation. But bearing corporate accidents, the landscape is set to be dominated for some time by Boeing, Lockheed, Raytheon and General Dynamics.

That does not mean rationalisation of the industry is over. Although plenty of companies have disappeared as independent entities, not many plants have actually closed.

Lockheed Martin, for example, makes the F-16 in the old General Dynamics plant in Fort Worth, Texas. It makes the C-130 Hercules transport in Marietta, Georgia, where it has installed a new production line for the next generation F-22 air superiority stealth fighter. It also has the famous "Skunk Works" plant in California where it develops and makes specialist and secret aircraft.

The general reduction in defence business since the end of the cold war has meant across-the-board job losses, but the infrastructure of the industry - which the Pentagon funds through the price it pays for defence equipment - has remained fairly intact.

In a recent paper, Eugene Ghos and Harvey Sapolsky of the Massachusetts Institute of Technology describe the production capacity overhang as "huge".

"Eight lines produce military aircraft, six private yards build large warships, five helicopter companies depend on military purchases, and there are three armoured vehicle production lines still active."

The lines, they say, are fed by Pentagon orders which

are not needed - or not at such a pace - in the post-cold war world. They advocate paying companies subsidies to close down production lines. This would not, they say, be a form of corporate welfare because "the real welfare going on is the continuing production contracts, which are much more expensive in the long run."

The defence industry is unlikely to agree with such views. But companies do recognise the need to rationalise their activities and to introduce more efficient production methods so they can compete with best practices in the commercial world.

"Lean production" is - if belatedly - the buzz-phrase in an industry which produces some of the most complex and advanced machines in the world, but until recently did so quite inefficiently. "Just-in-time" techniques of inventory control are being introduced. Gone are the days when hundreds of millions of dollars' worth of aircraft engines would be piled up in the corner of a factory waiting to be installed.

In most factories, the new techniques still have quite a long way to go before they fully take hold. Trade unions

are still a factor which managers must take heavily into account before announcing big changes.

However, the industry is absorbing with enthusiasm the computer-aided technology which enables it to design each part precisely and manufacture an aircraft "virtually". Machine tools can be directly programmed from designs, meaning that parts from each aircraft should be interchangeable instead of being one-offs as in the old days. The computer design can also ensure that aircraft will be simple to maintain.

Plant closures are more difficult. Boeing's restructuring plan - independent of its handling of production problems on its civil aircraft - was seen as modest when announced earlier this year. Raytheon's reorganisation, intended to rationalise the activities of three former groups, has been the most extensive so far.

Although commercial logic dictates there should be further streamlining of the industry, there must be doubts about the political imperatives which would drive such changes through. In spite of the steep cuts in defence spending since the cold war, congressmen are

## Notable mergers and acquisitions:

Since March 1994

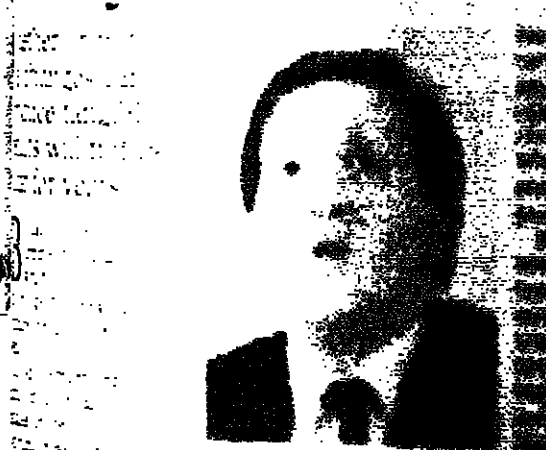
Acquirer	Acquiree	Value (\$m)	Date
Lockheed Martin	General Dynamics Space Systems	2,100	Apr 4 1994
Westinghouse Elec Sys	Norden Systems	228	Jul 2 1994
Northrop Grumman	Vought	130	Jul 31 1994
Allied Signal	Tadpole Lycoming	375	Oct 28 1994
Hughes	Teledyne Electronic Systems	n/a	Dec 20 1994
Alliant Techsystems	CEC Ltd	170	Feb 27 1995
Lockheed	Hercules Aerospace	408	Mar 15 1995
Rolls Royce	Marlin Marlin	>4,000	Mar 15 1995
Lockheed	Alison Gas Turbine	825	Mar 30 1995
Lockheed	Lundy Tech Center	7	Mar 31 1995
Lockheed	Chrysler Defense Operations	882	May 5 1995
Lockheed	Imco	n/a	Jun 9 1995
Lockheed	Raytheon	2,300	Jun 15 1995
General Dynamics	Bath Iron Works	300	Sep 17 1995
GM Hughes	Magnavox Electronic Systems	370	Dec 14 1995
Alliant Signal	Highway-Delco Inertial Systems	705	Dec 31 1995
Lockheed	Northrop Grumman Precision	505	Dec 31 1995
Lockheed	Geodynamics	32	Jan 19 1996
GM Hughes	Sperry Marine	180	Feb 9 1996
Lockheed	Liton-Tek	28	Feb 16 1996
Lockheed	PPC	425	Feb 20 1996
Northrop Grumman	Westinghouse Electronic System	3,000	Mar 2 1996
General Dynamics	Teledyne Vehicle Systems	55	Mar 29 1996
Lockheed Martin	Local	8,500	Apr 22 1996
Raytheon	Chrysler Technologies	405	Jun 14 1996
Southwest Marine	Confidential Maritime	n/a	Jun 14 1996
GE	Hazeltine	110	Jul 10 1996
Tracor	Corbett	65-91	Sep 26 1996
Boeing	Rockwell Aerospace & Defense	3,025	Dec 5 1996
General Dynamics	SAT Division of SAC	n/a	Dec 31 1996
Lockheed Martin	Lockheed Martin Armament & Defense Systems	450	Jan 1 1997
Alliant Techsystems	Alliant Techsystems Marine Systems Group	141	Feb 28 1997
McDonnell Douglas	McDonnell Douglas	13,500	1997
Raytheon	Texas Instruments Defense Business	2,550	1997
General Dynamics	Raytheon	9,500	1997
GE	Tracor	1,400	1998

\* For mergers, acquiring and acquired companies are shown in alphabetical order. \$ in caps.

Source: Defense Science Dept

DEFENCE PROCUREMENT • by Alexander Nicoll

## Reforms will take time



Reforms will take time



EUROFIGHTER • by Alexander Nicoll

# £42bn project gears up for production

Eurofighter will bring business to 400 companies and help secure 150,000 jobs

The arguments are over. Eurofighter will be built. Eighteen years after its conception, the signatures of four defence ministers in Bonn last December cleared the way for the £42bn project to move finally into production. It will therefore be with a mixture of relief and heightened expectation that crowds watch the aircraft perform some daring manoeuvres in what is expected

to be the centrepiece of the Farnborough Air Show next week.

In Britain, Germany, Italy and Spain, factories are being readied to turn out 600 aircraft, with the hope of perhaps a similar number in export orders. The programme will bring business to 400 companies and help to secure about 150,000 jobs.

With German budgetary disputes and other delaying factors left behind, the air forces of the four partner countries can now concentrate on what they are getting, as well as on keeping the performance high and the price as low as possible.

Years of debate have imbued those involved both in industry and among the customers - with fierce loyalty and proselytising zeal. Eurofighter, they insist, is an extraordinarily capable aircraft which will serve its owners well in a variety of roles for decades to come.

It is not true, they say, that the aircraft is outmoded even before it is built because it was first designed to operate in the cold war.

While defence of western Europe's airspace against attack by the Soviet Union was intended to be one of its functions, the aircraft was designed from the first to be multi-role and to operate in demanding environments, executives say. A review by the four air forces in 1994 produced a revised, modernised requirement, but this did not differ substantially from previous specifications.

In any case, its defenders say, air defence will continue to be important even if it is not defence of the homeland but defence of forces



Eurofighter's advanced radar will enable it to detect and identify enemy aircraft 100 miles away without giving away its own position

deployed abroad to deal with the world's crises.

For the partner companies in the consortium - British Aerospace (BAe), Daimler-Benz Aerospace (Dasa) of Germany, Alenia of Italy and CASA of Spain - the project is central to the future health of the European aerospace industry and will provide an important base of business as the industry is rationalised over the next few years. It involves the introduction of new "lean manufacturing" techniques on a par with civil aircraft construction.

The programme is hardly less important for the two parallel consortia: Eurojet which is making the EJ200 engines and includes Fiat of Italy, TTP of Spain, MTU-Munchen of Germany and

Rolls-Royce of the UK; and Eurostar, which has developed a new radar and is led by GEC-Marconi of the UK with FIAR of Italy, Dasa of Germany and Ensa of Spain.

Work is divided according to a deal which reflects the numbers of aircraft which each nation is buying. Britain, which is ordering 232, has 37 per cent of the work; Germany is buying 180 and has 30 per cent, Italy 121 with 19 per cent and Spain 87 with 14 per cent.

Each of the four main companies will have a final assembly plant, but will take responsibility for different components which it will make for all customers, so that no parts production will be duplicated. BAe, for

example, will make the front fuselage, the canards and the first stage of the aft fuselage at its Samlesbury plant in Lancashire, and will assemble Eurofighters for the Royal Air Force at its nearby Warton factory. Dasa will assemble the central fuselage for all four nations and aircraft for the Luftwaffe at its Manching plant near Munich.

BAe says tests have shown Eurofighter would perform better against the Russian SU-26 - used as a benchmark for aircraft which might be fielded by potential enemies, if not Russia itself - than any western aircraft except the American F-22 stealth fighter, which is not yet in full production and is estimated to cost more than

twice Eurofighter's £40m fly-away price.

Although Eurofighter is not as stealthy as the F-22 - its shape would cause at least its tailfin to give radar reflections - it does possess important stealth characteristics. Its advanced radar will enable it to detect and identify enemy aircraft 100 miles away. It will do so without giving away its own position because its sensors can be passive - meaning it does not have to "illuminate" the opposing aircraft.

It will be able to fire missiles at targets from a long distance because it will have "beyond visual range air-to-air missiles" now being developed by two competing industrial consortia. It is the combination of



Data and sensor fusion: Eurofighter's cockpit features integrated multi-colour displays developed by Smiths Industries Aerospace

sensors and weapons, as well as what is said to be a reasonably stealthy airframe, which supports the contention of engineers that Eurofighter is "as stealthy as it needs to be" - although their claims to "affordable stealth" are treated with some disdain in the US.

Other features of Eurofighter include:

● **Agility.** Eurofighter's intentionally unstable design, kept airborne by computers, makes it less "sticky" than other aircraft, especially at high speeds. Eurofighter, which has a high thrust-to-weight ratio, will fly at more than Mach 2 and will be effective in combat at supersonic speeds.

● **Data and sensor fusion.** The cockpit displays bring together onto integrated screens data from the aircraft's systems, from other sources such as accompanying aircraft, and the aircraft's sensors. Displays are reconfigured automatically based on the computer's analysis of what the pilot needs to see at any moment.

● **Carefree handling.** The pilot gives the instructions - sometimes by voice commands - and leaves the aircraft's computers to work how to fulfil them if possible. This enables pilots to attempt dangerous manoeuvres in the knowledge that

the system will act to protect them. It also frees the pilot to do other things. John Turner, BAe's chief test pilot, says: "There is never enough time to think in a military cockpit. It is a waste of brain resource to spend time making things happen which you have already decided to do."

UK DEFENCE PROCUREMENT • by Alexander Nicoll

## Reforms will target delays and costs

Whether or not the changes can produce tangible results will not be clear for years

Britain's Labour government has launched what is intended to be the biggest shake-up of defence procurement ever seen.

Called "smart procurement," it is meant to end decades of delays and cost over-runs in weapons buying which have attracted repeated criticism from politicians and government watchdogs such as the National Audit Office.

According to the NAO's most recent report, the 25 projects involving the most expenditure in the year ended March 31, 1997 were on average three years late - only three were expected to enter service at the date originally planned, and six were five or more years late. The total cost of the 25 projects was £3bn higher than the amounts originally approved.

Such problems are not new. Successive governments have tried to introduce greater efficiency into procurement. The most recent attempt was Michael Heseltine's appointment in 1984 of Peter (now Lord) Levene to head defence procurement.

His emphasis on competition for contracts brought benefits, but also problems. By the end of the Conservatives' period in office in 1997, neither the military, nor procurement officials, nor industry were happy.

George Robertson, the defence secretary, saw that this situation could not continue at a time when his £22bn annual budget, of which £9bn is spent on procurement, was under severe attack from the Treasury.

In the subsequent strategic defence review, the results of which were published in July, the overall defence budget was essentially preserved with relatively small cuts and all big new equipment programmes were protected.

But the Ministry of Defence promised to achieve 3 per cent savings in operational costs, to be achieved partly by plugging down the Procurement Executive, the MoD's buying organisation based near Bristol.

It has also promised £2bn of savings over 10 years through reforms of procurement methods. Sir Robert Walmsley, chief of defence procurement, is predicting a "complete culture change."

In the "acquisition organi-



Robertson's £22bn annual budget, of which £9bn goes on procurement, was under attack

sation review" which led to these promises being made, the MoD called in McKinsey, the management consultants. Many of its recommendations are to be implemented over the next two years.

McKinsey, which conducted its study in partnership with officials and industrialists, found the system to be inflexible and too bureaucratic. It said insufficient spending in early stages of development of new weapons produced flawed programmes and unnecessary costs in later stages.

There was too heavy reliance on competitive tendering. People responsible for programmes were not sufficiently accountable - although there were too many levels of review and oversight. Performance management was inadequate. On the contractors side, there were insufficient penalties and rewards - "too small a carrot and too small a stick".

McKinsey recommended dividing up items procured according to their value and importance. At present, everything supplied to the MoD has to be covered by a contract - the MoD signs 100,000 each year. Under the reforms, officials are to be issued with purchasing cards for low-value items.

The management of big projects is to be streamlined considerably. In future, each will have only two points at which it requires ministerial approval to proceed: the point of conception, and the point before big money starts to be spent on demonstrator models or production investment.

Each will have an integrated project team, which will include representatives from all those who will be involved in a product's life: industry, military requirements staff, procurement officials, and logistics staff who will be responsible for maintaining and supporting it in service.

Each team will have a

leader, who could be military or civilian, with a background on the technical or operational side or in the civil service, depending on what was seen as appropriate for a particular programme.

MoD officials are also planning to have each contract run as an "open book": the aim would be that the contractor is encouraged to seek savings during manufacturing, the benefits of which would be shared between the MoD and the company.

Competition for contracts is to be preserved as much as possible even though the defence industry has shrunk. To achieve this, the MoD would award prime contracts to "systems integrators" who might not be the manufacturers of the "platform" - the aircraft, ship or vehicle.

The prime contractor would then have the responsibility to achieve the cheapest price by holding competitions for sub-contractors. These practices are already common, but are expected to be given extra impetus in "smart procurement."

To some extent, the government is following the exhortations of industry which has itself radically reorganised supply chains and is suggesting the adoption of similar methods by the MoD.

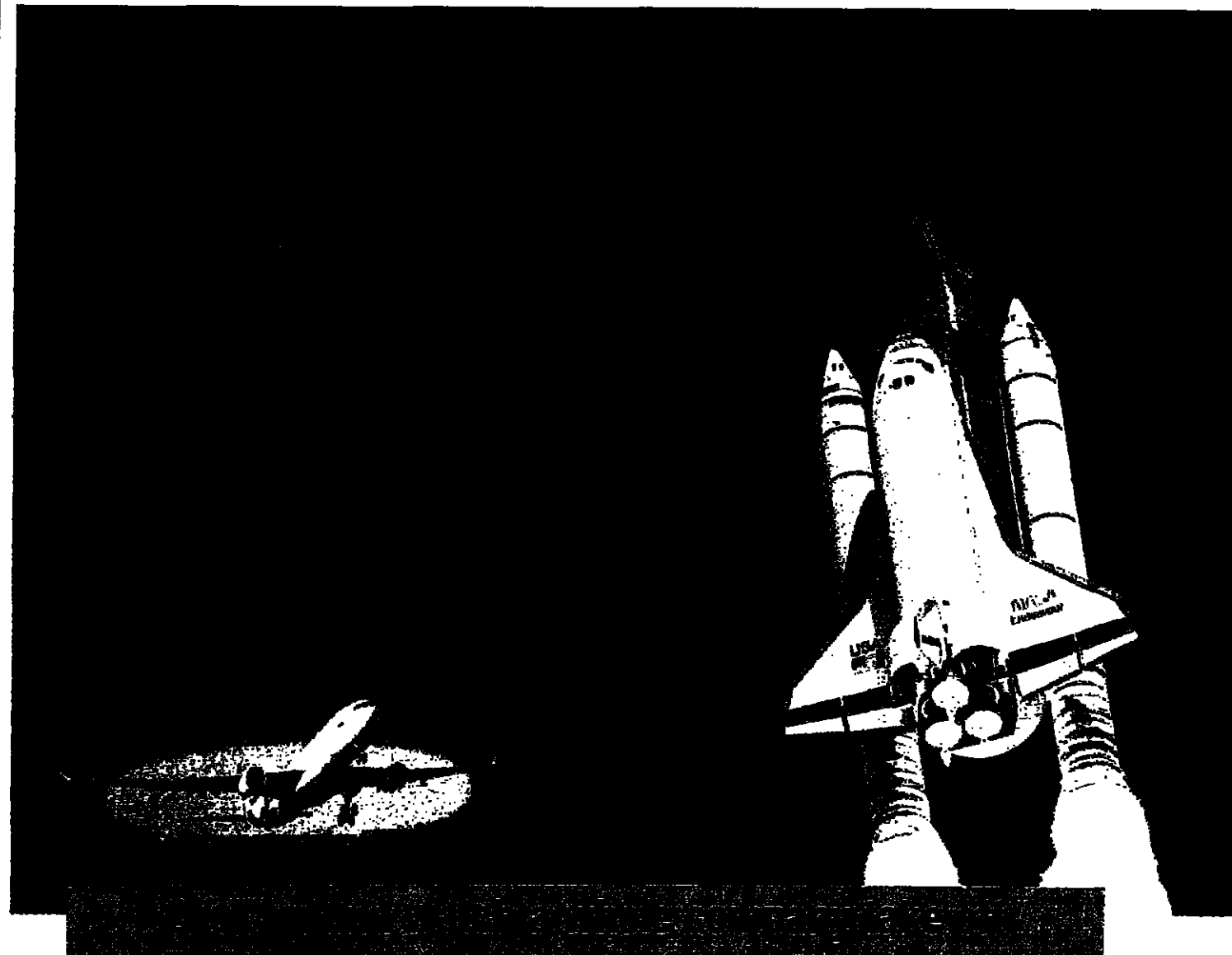
Britain's reform efforts are being closely watched in other countries, especially the US which has its own reform programme well under way.

Whether the reforms will produce tangible results remains to be seen - it will not be clear for some years because the biggest effect will be on new programmes rather than on those already under way, which will account for most spending for the time being.

Defence procurement, whatever new commercial practices are introduced, is inevitably affected by politics and by the military's changing perceptions about what it needs to counter threats.

Many programmes involve collaboration with other countries, with the result that a programme is almost bound to move at the pace of the slowest partner.

The Merlin EH101 anti-submarine helicopter will enter service with the Royal Navy this year, more than 20 years after its initial conception. Eurofighter has had a similar gestation period. But this is by no means all due to British bureaucratic bungling. Reforms of the bureaucracy, therefore, seem likely to deal with only part of the problem.



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## 12 AEROSPACE Defence

AIR TRANSPORTERS • by Alexander Nicoll

## Why American manufacturers are sitting pretty

Europe must act soon if military air transport is not to become a US-only business

The contenders: Boeing's C-17, big but expensive; Lockheed Martin's C-130J Hercules, a sturdy old warrior with new gadgets; the Future Large Aircraft, still on the drawing board at Europe's Airbus; and Ukraine's Antonov AN-70, big and cheap but seen in the west as unreliable and costly to run.

These are the aircraft which between them seem likely to meet healthy demand from the world's armed forces for new military transport aircraft.

Europe's forces are re-inventing themselves: During the cold war, virtually all their thinking was focused on dealing with a war against the Soviet Union fought close to home on the plains of central Europe. With that likelihood now much diminished, the emphasis now is on being able to project power in order to deal with the world's regional crises and prevent them spreading into larger wars.

The theme of Britain's recently completed strategic defence review - echoed in other countries - was rapid deployment. "We must be prepared to go to the crisis, rather than have the crisis come to us," said George Robertson, the UK defence secretary.

The problem faced by the military, however, is how to get there. The Royal Air Force and its European counterparts are suffering from their masters' lack of attention over the years to that far from glamorous - but nonetheless vital - component of their armory, military transport.

The new thrust requires forces to arrive quickly at a distant location and to be

effective immediately - whether for combat, peace-keeping, or a humanitarian mission. Not just men, but weapons, vehicles, helicopters and much else must be at the destination in short time.

Britain has 55 C-130 Hercules, and is replacing 25 of them with new C-130J aircraft, likely to be delivered to the RAF next year - nearly two years late after a series of development problems. It also uses VC-10 and Trident aircraft to carry personnel. But this fleet is not sufficient, especially as none of these aircraft will carry larger armoured vehicles or helicopters.

The government's defence review identified the shortfall in "strategic lift" as an urgent problem. As well as planning to acquire more transport ships, which will meet many of its needs, it has elected to follow a path which was being urged upon



Trusty: Lockheed Martin's C-130J Hercules has new engines, digital avionics, head-up displays and a two-man crew instead of four

its predecessor: to lease C-17 aircraft which, at about \$200m each, are seen as too costly to buy.

The government is issuing invitations to industry to tender to meet this short-term need which, though four C-17s are almost certainly the answer, could still in theory be met by an alternative aircraft. The competition is more likely to be about terms for leasing

arrangements than over the type of aircraft.

But the remaining ageing Hercules also have to be replaced, and the need for strategic lift has to be addressed on a long-term basis. Therefore, the Ministry of Defence will hold a second competition simultaneously with the first.

This is where it gets more complicated. Four years ago, Malcolm Rifkind, then the

defence secretary, managed a neat trick: he got British industry to welcome enthusiastically a £1bn decision to buy American. This was because, although he ordered the 25 C-130Js from Lockheed Martin - which has considerable participation from UK industry - he also committed Britain to a European project to build the Future Large Aircraft (FLA).

But the FLA, which has been designed by the Airbus consortium and would doubtless be a highly capable aircraft, seems even less likely to fly now than it did in 1994.

Last year, Mr Robertson appeared to give the FLA a long-needed boost when he issued a request for proposals to Airbus and said he was likely to buy between 40 and 50 of the new aircraft,

which is designed to meet the needs of eight European air forces and would carry armoured personnel carriers and helicopters but not tanks.

A year later, however, the FLA is simply a contender with US rivals to meet the RAF's long-term needs. The RAF, which has for long been unenthusiastic about the FLA, will have its new C-17s in service - as well as C-130Js - and crews trained to fly them. RAF officers say they do not want to have three different transport aircraft.

European governments have not put up funding to finance the estimated \$5bn development cost. Paris and Bonn, which have less urgent needs for transport aircraft than the RAF, are trying to cut defence budgets.

Another factor has recently muddled the FLA's prospects still further. This

year, Volker Ruhe, Germany's defence minister, ordered Daimler-Benz Aerospace, an Airbus partner, to study the possibility of using the Ukrainian Antonov AN-70 as an alternative to the FLA.

Bonn and Kiev want the study to be completed rapidly in order to see whether a co-operative programme to develop a military transport based on the AN-70 could get off the ground.

Airbus had refused to consider the AN-70 as a basis for the FLA, believing it would be unreliable and would have excessively high maintenance costs.

For the German government, it seems the political benefits of bridge-building eastwards might override the gains to be made from using the FLA as a flagship of a rationalised west European aerospace industry.

All of which leaves Boeing and Lockheed sitting pretty. The Pentagon has ordered 80 C-17s, made at the former McDonnell Douglas plant at Long Beach, thereby increasing its total fleet to 120 of the aircraft, which is large enough to carry a main battle tank.

Lockheed has launched a massive worldwide marketing campaign for the C-130J, which it expects shortly to receive certification of airworthiness from the US Federal Aviation Administration this summer.

The C-130J has new engines, digital avionics, head-up displays and a two-man crew instead of four previously. Problems with its software, cockpit displays, stalling characteristics and landing have been overcome.

US executives are looking for further opportunities in Europe, perhaps through a collaborative project to replace ageing fleets of tankers for in-flight refuelling.

Europe will need to take action soon if it is not to leave military transport as a US-only business.

PRIVATE FINANCE • by Alexander Nicoll

## C-17 lease plan reflects growing trend

The MoD aims to boost the private sector's role in support and logistics

The UK Ministry of Defence's decision to lease four C-17 aircraft is the latest move in a growing trend to involve private finance in the operation of Britain's military capabilities.

The past decade has seen a sharp rise in the contracting out of services, especially at bases around Britain. In the past few years, the MoD has made increasing use of the private finance initiative concept, in which companies own facilities and offer services to the MoD.

C-17s, large transport

aircraft made by Boeing at the former McDonnell Douglas plant in Long Beach, California, cost about \$200m if bought new. Leasing can considerably reduce the cost.

MoD officials do not yet know how much it will cost to lease four aircraft, of which the first is due to be delivered by the end of 2001. They plan to hold a competition in which several financing mechanisms - and even alternative aircraft - could be offered.

Officials do not, however, disagree with estimates that it could cost £1m a month to lease an aircraft. The cost effectiveness of such an arrangement depends on the length of the lease, which officials estimate at a minimum of seven years.

The Royal Air Force would operate the aircraft and supply the crews.

However, the RAF has seen many support activities put out to private contractors such as Hunting and Serco. This trend is likely to increase, as, following the defence review, the MoD seeks to step up the private sector's involvement in support and logistics.

Hunting, for example, provides all support services at the RAF College at Cranwell, Lincolnshire, and operates the nearby Joint Elementary Flying Training School, where it owns 43 trainer aircraft.

Among its other contracts is station support at RAF Lyneham in Wiltshire, where the Hercules fleet is based. It conducts some

maintenance of the aircraft and is responsible for services such as catering.

Some officers at Lyneham say the RAF's own skills and training base is eroded by such contracts, reducing the force's long-term effectiveness. Contracting staff cannot be deployed on active service or do many other tasks of the uniformed staff they replaced, such as guarding the gate.

Officers argue that private contracting provides only a temporary cut in MoD costs because contractors employ trained former service personnel whom they can pay low rates because they are receiving service pensions. "When this pool dries up, they will have to train people and the cost will rise," one officer says.

Robert McLuckie,

managing director of Hunting Contract Services, agrees that this is a problem and says costs for contractors are rising because they have to train people or pay higher rates to attract trained staff from elsewhere. But he believes there will still be significant savings for the services.

By contracting out, they save not only on salaries but also on accommodation, uniforms and other staff facilities. He says contractors are extending the use of their staff's skills, in which the RAF invested, to the benefit of the RAF.

Contracting out and PFI solutions are likely to grow: the MoD has a long list of activities which could be taken over by the private sector in coming years. Coming soon, for example,

will be provision of support vehicles - such as fire engines and ambulances - at all RAF and Royal Navy airfields.

However, the MoD will not permit private company employees to operate at the front line of combat, although they are getting much closer to it. This means that essential maintenance skills are likely to be preserved within the uniformed services for some time to come.

Nevertheless, private maintenance staff were sent to support equipment during the Gulf War. The defence review proposes "sponsored reserves" - employees of companies who would have military training and be ready to don uniforms in order to carry out specialist tasks.

INTERNATIONAL DEFENCE MARKETS • by Mary Dub

## 'Bottoming out' after the slump

Stability in the US market has proved a benefit to European sub-contractors

After the slump in the defence equipment market in the years following the end of the cold war, the market viewed from London is now "bottoming out", according to Professor Keith Hayward at the Society of British Aerospace Companies. He says: "The military market is now reasonably stable and shows signs of slight growth at around 0.5 per cent, but this is subject to uncertainties about the Asian Pacific economies".

The most significant trend has been the rationalisation of defence manufacturing companies into multinational groups such as the Airbus Industrie Consortium (AI) in Toulouse, uniting four aircraft construction companies, to build the Eurofighter.

The domestic American market is stable for big ticket items and was boosted this May by an additional \$1bn added to the fiscal 1999 budget of \$48.7bn earmarked for new military aircraft. The senior analyst at Forecast International, a military market intelligence group, sees this as "a little bit better than it was".

The US Senate Armed Services Committee and the House National Security Committee wanted additional spending to procure two Lockheed Martin F-16s for the US Air Force, two Joint Stars defence umbrella systems from Northrop Grumman, and eight Black Hawks plus a list of other helicopters and transport aircraft.

This stability in the American market, despite its competitiveness, is good for European sub-contractors such as GEC Marconi because some of their systems are already on board well-funded programmes such as the F-16, the F-22 and the new American Joint Strike Fighter. This highlights the trend in defence marketing, where few military aircraft, if any, are now an exclusive national product.

Indeed for export, many aircraft and their compo-

nents are customised and assembled in the purchasing country in partnership deals to offset the political cost of buying defence items abroad and to ensure that the buying country benefits from the transfer of technology and skills from the multinational or transnational corporation selling the product.

In the mature European market, with the exception of the Eurofighter, the demand for big ticket items is limited. Most demand is for upgrades, maintenance and more sophisticated avionics systems.

However, potential Nato entrants such as the Czech republic, Poland, Hungary and Slovakia find their need to establish Nato interoperability is generating equipment requirements. The Congressional Budget Office estimates that the cost of refitting combat aircraft to permit delivery of western precision-guided missiles and the purchase of new air defence systems at \$13bn.

Russia and the Ukraine are making a comeback into the sales market with an increasingly active Russian military equipment agency Rosvooruzhenie. While Russian military exports added to \$3.5bn in 1996 they are now starting to creep up with sales at the most price-sensitive end of the market to old trading partners China, Vietnam, India and Pakistan.

Rosvooruzhenie has been negotiating sales of Mig-29s to Malaysia and 12 SU-30 jet fighters to Indonesia. In Indonesia's case the deal was struck with Russia after negotiations with Lockheed Martin to buy nine F-16s were broken off when the US Congress criticised Jakarta's human rights record.

The Russians now have an established place in the Asian Aerospace show in Singapore and say they wish to challenge American dominance of the Asia and Pacific region defence scene.

But optimism about Asia has been put on hold. The Asian arms market, estimated by the Stockholm International Peace Research Institute to be \$165bn in 1995, has now collapsed. The Indonesian order for SU-30s has been cancelled, Thailand has backed out of a contract to buy eight F/A18 fighters, and Seoul has suspended plans

to buy four Awacs surveillance aircraft over 10 years. Japan has slashed its defence budget for the first time since fiscal 1985.

But the threat perceptions that dictated the need for arms purchases are still there. Kathryn Haydon, Lockheed Martin's spokeswoman, still sees the market as "highly significant with the potential for longer lead times on funded programmes".

Tensions between the two Koreas remain, as does the risk of insurgencies in Thailand, Malaysia and Indonesia. Once economic stability is re-established the Asian countries will look for upgrades, maintenance and modernisation.

The attention of Lockheed Martin and McDonnell Douglas has switched to Latin America, where access for arms exports has until July last year been denied by the Clinton administration.

Chile has decided to modernise its air force, including tankers, fighters and Awacs and may arm these with the Raytheon Amram or French MICA. Peru has recently signed contracts with Russians while Brazil is looking for combat aircraft and early warning radar and remote sensing systems.

Although this market is as yet relatively small, Lockheed Martin sees it having "potential to develop, with sales of the F-16 and a programme of partnerships for the longer term".

The Middle East and Gulf states have been important purchasers of defence equipment since the Gulf war and the Al-Yamamah deal between the UK and the Saudis continues. Analysts now see the Saudi market as "saturated" with new weapons still in unopened crates due to continuing weakness in oil prices. But by 2001 the Saudis' F-16s will need to be replaced.

The United Arab Emirates is interested in the Eurofighter or the F-16 armed potentially with Raytheon's Amram, as is Kuwait. These platforms require back-up with modern electronic warfare and air defence systems which would be integral in the package.

But with the prospect of better relations with Iran and Iraq, the Arab states are reassessing their weapons needs.

HELICOPTERS • by Mary Dub

## Focus is on new partnerships

The next move for European consortiums could be into the American market

Merger talks between Westland, GKN's helicopter subsidiary, and Agusta, the Italian arm of Finmeccanica, are proceeding - with an agreement in sight for the early autumn. The merger is seen as an appropriate partnership between two companies with complementary strengths in their product portfolios.

Westland's strength lies in the production of military helicopters. It is producing 67 AH-64 Apache helicopters under licence from Boeing for the British army, and in collaboration with Agusta, the EH101 Merlin helicopter for the Royal Navy. And it has export orders for the EH101 from Canada, Japan, and South Korea. These orders have been won in a fiercely competitive environment where tight defence budgeting means there is little market growth without looking to exports. This \$3.8bn order book will keep the 3,800 workforce busy to 2003.

Agusta produces civil and light aircraft for which there is a steadier potential demand. The Italian company is not tied to the defence procurement budget cycle, making the merged partnership a stronger presence in the market place. However, there may be job losses at Westland when some Italian and British facilities are rationalised.

The Westland-Agusta merger will compete with last year's newly merged Boeing-McDonnell Douglas with 31.7 per cent of the military/heavy military helicopter market over the 1997-2006 period, according to American military market analysts Forecast International. Their production schedule is geared to producing the CH-47D, the ICH and

Longbow Apache modifications. Boeing-McDonnell Douglas is the most established market leader.

Second in the field is Sikorsky with 17.1 per cent of the market share by value. It recently won a \$145m contract for 108 Black Hawk helicopters for the US Defence Department. Sikorsky's position could be vulnerable to competition from the Westland-Agusta consortium's EH 101 which American analysts see as "an outstanding aircraft with a choice of two superb, advanced fuel-efficient engines." It also offers flexibility in ASW (anti-submarine warfare), transport and civil utility roles.

The largest competitor with Agusta in the civil and light utility helicopter market is Bell Helicopter Textron. It has the light model 407 which has become the success story of the industry. Bell has shipped more than 225 craft since production began in 1996 with a lower price ticket than its direct European competitors: Agusta's A109E and the AS355N and the EC135 from the Franco-German partnership Eurocopter.

Eurocopter is Westland-Agusta's strongest European rival. Formed in 1992 from a merger of the helicopter operations of Aerospatiale and DASA, it has had government backing. In June 1997 it received a \$496m production investment contract from the French and German governments for 160 Tiger helicopters.

The Tiger programme has had a difficult history marred by changes in funding and specifications. Its direct competitor is the NH90 which shares many of its specifications and it lacks non-military applications which limits its potential in the export market.

The other multinational consortium in the market is NH Industries. Its NH90 is manufactured by Euro-



Westland is producing 67 AH-64 Apache helicopters under licence from Boeing

copter Deutschland, Eurocopter France, Agusta and Fokker who are now producing a reduced total of 647 craft for the German, French, Italian and Dutch governments; the same governments that are funding the Tiger competitor.

In an overcrowded marketplace with stagnant demand and a fiercely competitive global export business, there is a need for exports or for further rationalisation.

The Asian export market is now slow and subject to much uncertainty but Malaysia has been close to a deal with GKN Westland, South Korea already has orders and the Philippines and Indonesia are potential purchasers.

Latin American interest in helicopters has been marked. The Brazilian deep-water oil exploration industry has an expanding need for transportation by helicopters. And Colombia's anti-drug campaign needs light armed police craft as do Venezuela and Chile.

According to a secondary survey by Allied Signal, the worldwide market for new turbine-powered helicopters in the next five years stands at 2,541 aircraft. Latin America represents 11.8 per cent of that figure.

Other noted contenders in the helicopter market are the Russians with the Mi14, Mi26 and Mi28 range which gives them an important

place in the market for heavy combat craft.

With 27 helicopter manufacturers worldwide there is plenty of choice. Eurocopter, for example, has an active policy of assembling partnerships with small new entrants in the business. For example, the EC120 is produced by the China National Aero-Technology Import and Export Corp, Harbin Aircraft Manufacturing Corp, and Singapore Technologies Aerospace. They plan to produce as many as 60 aircraft a year for local markets.

The dilemma for European helicopter manufacturers confronting stagnant demand from their own governments is to export or merge to acquire the technology and the product range to remain successful in a market place dominated by Boeing-McDonnell Douglas and Sikorsky.

Insiders in the European industry speculate that the next move for the European consortiums should be into the American market to gain access to US government contracts and the strong American domestic market and the long and potentially profitable production runs that implies.

The US government's current policy is to let the rationalisation of the defence companies take its own course. There are more mergers ahead.



Testing times: Flight data recorders from Smiths Industries will be fitted on the first eight flight-test aircraft for the UK Longbow Apache helicopter

nearheading  
form of the  
Pentagon's  
relationships

Alexander Nicoll

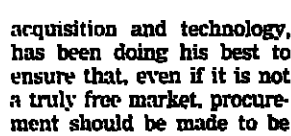


**PROFILE** Alan Mulally, head of Boeing's information, space and defence systems division

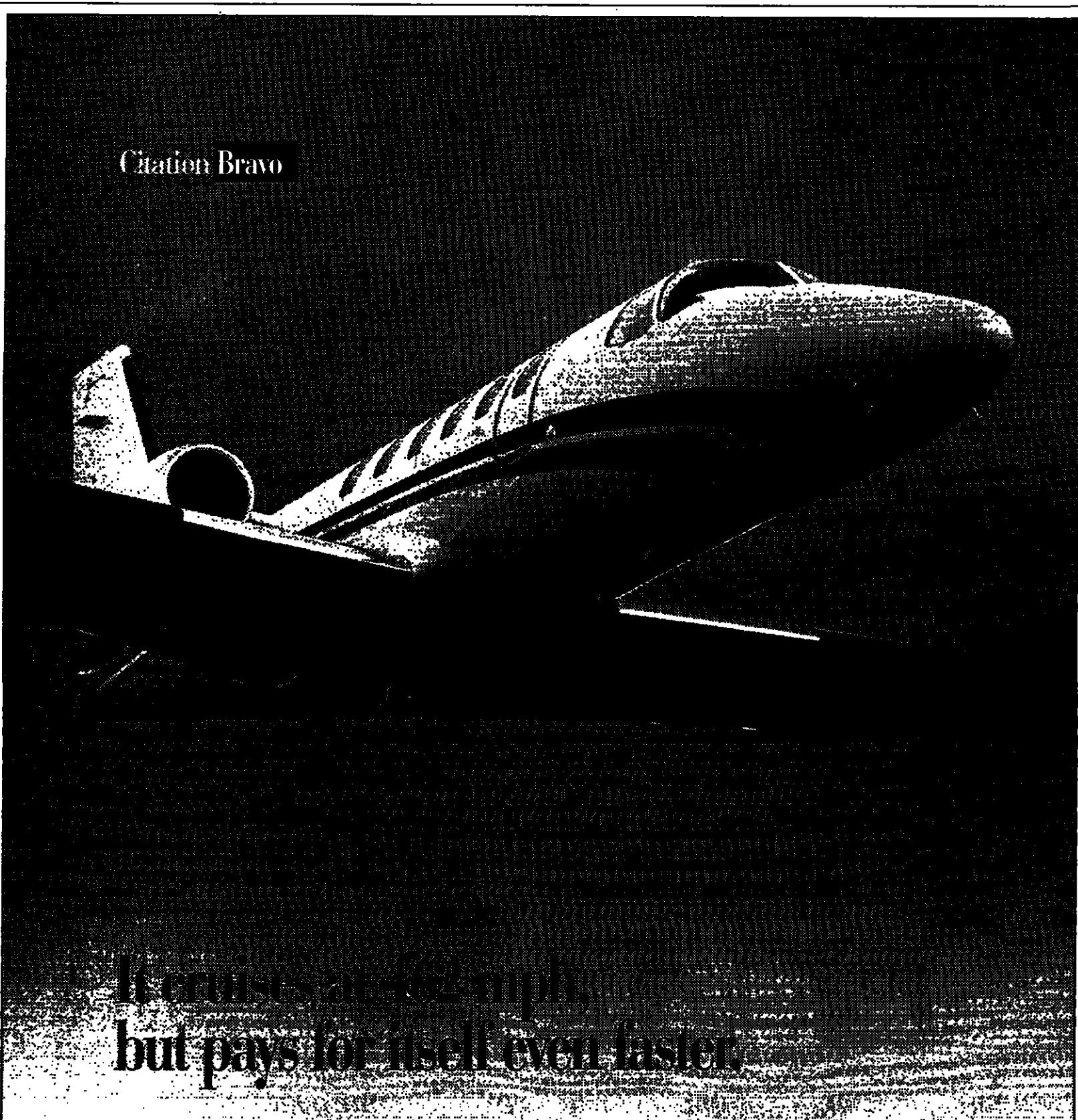
## Lessons from the commercial sector

**In the new era, the Pentagon's relationships with industry will change drastically, especially because its budget has been cut to reflect the reduced threat.**

**"Commercial practices, and especially digital technology, lasers and**



## Alexander Nicoll



**Cessna**  
A Textron Company

## Alexander Nicoll



## 14 AEROSPACE Space

COMMERCIAL SPACE • by David Owen in Paris

## Increase in Leo launches should keep sector aloft

Some significant changes are likely to reshape the satellite launching industry

The commercial satellite launching sector is, seemingly, the epitome of a growth industry. The expansion of digital television and radio, mobile communications, the internet and multimedia has substantially increased demand for its services in recent years.

According to Euroconsult, the Paris-based space specialists, the number of satellites above 100kg launched rose from an average of 18 a year in the 1978-87 period to 46 a year between 1988 and 1997. This

growth looks set to continue, with an average of between 132 and 163 satellites a year forecast for 1998-2007.

The market value of these launches over the coming decade is put at a minimum of \$45.6bn (under 1998 economic conditions), against \$3.5bn in 1978-87 and \$23.7bn in 1988-97. Commercial operators are expected to generate almost three-quarters of this 1998-2007 total.

But these figures mask significant changes which are reshaping the industry. The manner in which individual operators respond to these trends will largely determine how they fare in the years ahead.

Chief among them is the dramatic increase in demand for launches of comparatively small Low Earth Orbit (Leo) satellites. These began

to grow in importance last year, as the deployment of networks, or "constellations", of mobile telecommunications satellites began with the Iridium project.

Euroconsult says that as many as 93 of the 160 satellites slated for launch in 1998 will be Leos. Over the full 1998-2007 period, the organisation expects Leos to account for about two-thirds of satellites launched.

Unlike the big geostationary satellites which have dominated the market for the past 25 years and which have been launched individually or, at most, two at a time, Leos are amenable to multiple launches, with as many as 12 satellites being accommodated on one launch vehicle. This means that even if the average number of satellites

launched each year triples in the 1998-2007 period compared with the previous decade, the number of actual launches will not necessarily rise by very much.

This seems all the more likely to hold true since commercial launchers may well also have to cope with a tailing off in the number of geostationary satellites launched from current high levels. Having sold a record 37 geostationary satellites in 1995, satellite manufacturers sold 24 geostationary communication satellites in 1996 and 23 in 1997.

According to Euroconsult, "it now seems increasingly likely that the market has reached the peak of its third demand cycle". Its figures suggest the number of commercial communications satellites launched could fall

from well over 40 this year to fewer than 35 by 2003 and 25 or less by about 2005.

If things work out favourably for the industry, this downturn in the geostationary market will be offset by the expected upsurge in Leo launches. Patrick Rudloff, commercial director of ArianeSpace, the 50-company European satellite-launching consortium, believes Leos will represent about 30 per cent of launches from 2001 to 2005.

Any delay in the projects expected to increase demand for Leo launches in this period would risk upsetting this convenient balance, however. Some observers appear to believe this is a distinct possibility. Stéphane Chenard, a Euroconsult senior consultant, says: "I have no doubt we will see

broadband satellites within, say, 10 years. Will they step in to take up the slack? I don't know."

Another expert, Stéphane Barensky, editor-in-chief of the International Space Industry Report, an industry publication, believes future trends are particularly hard to discern at present. "We are in a phase when many new technologies and new markets are arriving but we don't know what will last," he says.

On the supply side, the strong growth registered by the launch services market over a number of years is attracting increased competition. Euroconsult says the 12-month period starting in August 1996 will be "a turning point" for the industry, with the commercial introduction of four big new

vehicles, or new versions of existing ones: Boeing's Delta 3, Sea Launch's Zenith SSL, ArianeSpace's Ariane 5 and Lockheed Martin's Atlas IIIA.

If all goes well, these four vehicles should reach their maximum launch rate simultaneously by 2000-2001, Euroconsult says. "Beyond 2000, more operators will, or may, enter the commercial marketplace, albeit with a less solid track record," Euroconsult believes the same period will also be critical for the market's Leo segment.

Add to this the possible impact of the financial crisis in Asia, a region that accounts for a significant proportion of demand for the telephone, television and computer services which the satellites make possible, and

life may be tougher for the commercial launching industry in coming years than might be suggested by a simple glance at forecasts of an increasing number of payloads to be launched.

"The industry is not in bad shape," says Mr. Chenard. "We are not talking crisis. But I cannot exclude in the next five years that we won't see people who thought the good times were forever may have to retrench." That said, "this is not going to be the automotive industry".

\* Launch Services Market Survey, Worldwide Prospects to 2007 and World Satellite Communications and Broadcasting Markets Survey, Prospects to 2007. Both available from Euroconsult, 71-79 Boulevard Richard-Lenoir, 75011 Paris, France. Price: \$2,950 and \$3,450 respectively.

RUSSIA'S SPACE INDUSTRY • by Astrid Wendlandt in Moscow

## Emerging from the shadows

Russia may not be up to date with satellites but it has state-of-the-art launchers

Russian space engineers have descended from their Soviet ivory towers, rockets are no longer rusting in dilapidated warehouses and some workers in the industry are even being paid on time. After several lean years of crippling economic reforms and dwindling government subsidies, Russian state-owned space companies are emerging from the shadows, determined to get a good share of the \$27bn global satellite launch market.

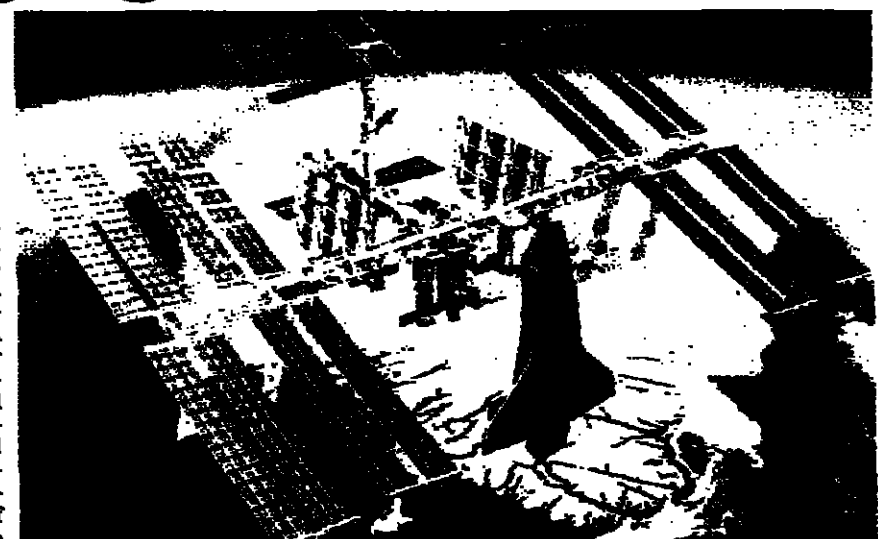
Russian space companies have solved most of their financial problems by entering into partnerships with western aerospace companies, which bring them publicity and big sales contracts. Their western partners are making good profits marketing and selling Russia's stockpile of cheap, reliable and powerful rockets, left over from the cold war years.

"The Russians have some of the best rockets in the world," says Julie Andrews, spokeswoman for Lockheed Martin, the American aerospace giant, which has joint ventures with the Russian rocket maker Khromachev, the engine manufacturer Energiya and the Russian Space Corporation Energiya (RSC Energiya) which also runs the Mir space station.

Russia may not have the latest technology in satellite construction. Seventy years of restricted and frequently bugged telecommunications did not encourage research in that domain. But it has state-of-the-art launchers that will put satellites into orbit at competitive prices.

"Launchers are the best export for the Russian space industry," says Stéphane Chenard of aerospace industry consultants Euroconsult. Currently, Russian Energiya's most glamorous venture is its \$1bn Sea Launch project with American aircraft manufacturer Boeing, Norwegian shipbuilder Kvaerner and Ukrainian rocket maker Yuzhnoye. Using a mobile, converted oil-drilling platform, Sea Launch will launch commercial satellites from neutral waters south-east of Hawaii.

The idea is to launch satellites from closer to the equator, where gravity is lower



Russia is one of the 13 partners involved in the International Space Station project

and less fuel is needed - implying lower costs and increased payloads. The Sea Launch project, brainchild of Russian scientists, would have never come close to realisation had the Russians relied on their cash-strapped government, Energiya officials say.

"If it wasn't for our [foreign] partners, I know the project would have stayed on paper," says Valery Alyev, deputy general designer of RSC Energiya.

Energiya and the Yuzhnoye rocket factory in Dnepropetrovsk, Ukraine are providing the Zenith rocket which is designed like a ballistic missile and fired easily. Kvaerner, the Anglo-Norwegian industrial group, is supplying the launch pad and Boeing is the overall co-ordinator of the project.

So far, the multinational joint venture has secured contracts to launch 18 satellites in the next three years for American companies Hughes Space and Communications and Space Systems/Loral.

However, Sea Launch will have to compete with other

powerful Russian rockets such as the Proton, launched from the Kazakhstan cosmodrome in Baikonour and Soyuz, which might soon be launched from Kourou in French Guiana.

The Soyuz rockets, which made history in 1961 by sending Yuri Gagarin on the world's first manned space mission, are now gaining a significant chunk of the low orbit satellite launch market thanks to their French partners.

Aerospace and ArianeSpace of France and the Soyuz rockets makers, Moscow's RSC Energiya and Samara's TsKB Progress, entered into a joint venture, called Starsem, two years ago. By the end of 1998, the company will have put into orbit a constellation of 12 satellites for the American company Globalstar, according to Mathieu Weiss, Starsem's project director.

International marketing managers also make sure that the Proton, a rocket more powerful than the Soyuz, takes off several times a year. In 1995, the Proton manufacturers,

Khromachev and Energiya, entered into a joint venture with Lockheed Martin and founded International Launch Services (ILS).

Lockheed Martin retools the Proton rockets and Lockheed's Atlas rockets. Thanks to ILS, Proton is booked for 20 launches until the year 2002.

Understanding the huge potential of the satellite launch market, Lockheed Martin and Khromachev invested some \$50m to improve the facilities at the Baikonour cosmodrome, which Russia rents from the Kazakh government. To ensure more comfort for their clients and engineers, they even built a hotel there.

"If you are going to send a \$100m satellite in orbit, you cannot host your clients in a dormitory," says Stéphane Chenard from Euroconsult. The key piece of artillery in the satellite launching industry is not only the rocket, but the engine that will propel it into space. The Russian rocket engine maker Energiya has secured itself an economic lifeline with a \$1bn contract with Lockheed Martin. Energi-

ma will build and design engines for Lockheed's new generation of Atlas rockets and the US Air Force's new family of launchers, the Evolved Expandable Launch Vehicles (EELV).

The Russian company will provide the American aerospace giant with up to 100 engines over the next 10 years. "It's the most powerful and advanced engine of its class," says Patrick Louden, spokesman for Pratt & Whitney Space Propulsion which helped secure the deal between Energiya and Lockheed Martin.

The engines will give Atlas rockets the capacity to launch some of the heaviest commercial satellites now on the market from Cape Canaveral in Florida, he says. The first Energiya engine, expected to be delivered in September, will put Lockheed's new Atlas 3A rocket into space for the first time next March.

Lockheed Martin reckons the purchase of Russian engines spared it a lot of time and money in research and development. "It would have taken us years and several billions of dollars to come up with that technology," says Mr. Louden.

The only snag for the Russians is that they will have to literally hand-over their engine technology to the US. Since the EELV rockets will serve military purposes in addition to their commercial flights, US law requires that all parts of the rockets, engines included, be produced in the US.

This means that Energiya will have to transfer its billion-dollar secrets to Lockheed Martin to allow it to manufacture its engines in the US. Also, it is likely that the Russian engines will be put into orbit US Air Force satellites that will give the Central Intelligence Agency a closer look at Russia.

On the other hand, Russia will benefit from good commercial relations with the US government, which is its main partner in the construction of the \$40bn Alfa International Space Station due to be completed in 2003.

Russia will bring to the Alfa project invaluable information about living long term aboard spacecrafts, which it gathered during Mir's 12 years of operation. By next spring, the 140-tonne Mir craft is scheduled to have re-entered the Earth's atmosphere and burnt up or splashed down in the Pacific Ocean.

## PROFILE

## Competition will get much tougher

These are busy times for ArianeSpace, the 50-company European commercial satellite-launching consortium. After an unplanned four-month interruption in launches, due to delays in deliveries of satellites to the Kourou launch site in French Guiana, the company is trying to cram eight flights into little more than four months at the end of the year.

If it sticks to this demanding schedule, which includes the third launch of the new Ariane 5 rocket, the consortium, headed by Jean-Marie Leduc, chairman and chief executive, will have done much to underpin a reputation for reliability that has survived the explosion of the first Ariane 5 in June 1996. This would stand it in good stead at a time when competition in a market dominated by ArianeSpace in recent years is poised to get much tougher with the imminent arrival on the scene of a string of new launchers.

The successful second mission by Ariane 5 in October 1997 took a lot of pressure off Europe's space industry. In a world in which telecommunications satellites are getting bigger and bigger, ArianeSpace badly needs the additional carrying capacity offered by the new rocket if it is to continue to offer the dual launches on which its competitiveness depends.

As it is, with satellites weighing 5 metric tonnes, ArianeSpace is expected to appear in 2000, plans are already in train substantially to increase the new launcher's carrying capacity for geostationary payloads of the type which have dominated the launch market for the past 25 years. Capacity is expected to rise from 6.8 tonnes at present to 9 tonnes in 2001 and 11 tonnes in 2002.

Another challenge for the consortium, which last year increased its share capital from FF270m to FF270.9m partly via an issue of new shares for cash, is to win a large slice of the burgeoning market for launching low-or medium-orbit



Ariane 5's successful second mission took a lot of pressure off Europe's space industry

"constellation" satellites. Patrick Rudloff, ArianeSpace's commercial director, believes Ariane 5 is well-placed to attack this market, not least because of the rocket's maximum carrying capacity of about 20 tonnes into low earth orbit. The sheer number of satellites that need to be put up to form a typical constellation, and the relatively short period in which the launches need to be accomplished, mean that a real "space ferry" is required to undertake the task, Mr. Rudloff says. "Ariane 5 plays that role very well."

ArianeSpace is also working on the development of a restartable upper stage for Ariane 5 to give it more flexibility in positioning Leo satellites, which can often be launched into orbit in clusters. This is expected to be ready in 2001 or 2002.

In addition, ArianeSpace has a 15 per cent stake in the Starsem Franco-Russian joint venture - which operates and markets the Soyuz launcher, used in the early Soviet cosmonaut programme as well as for manned flights to the Mir space station - on the international market.

Shortly after its creation in August 1996, Starsem signed three contracts for the launch of 12 Globalstar constellation satellites. The first launches should start

in the autumn. Jean-Yves Le Gall, chairman and chief executive, says Starsem's main target is the constellation satellite market. "Soyuz can place constellation satellites into low orbit at a relatively low cost," he says. "Ariane 5 can easily launch some 10 Leo satellites at one time, but for a smaller number, the European launcher would be more expensive than Soyuz."

Figures produced by Euroconsult, the space specialists, give ArianeSpace - which reported net income of FF77.4m in 1997 on sales of FF26.56m - a 53.5 per cent share of the commercial launch market over the decade from 1988 to 1997. Last year's revenues were generated from the launch of 17 satellites by 11 Ariane 4 launchers.

While the consortium, created in 1980, claims to have won 17 of the 30 launch contracts signed in the world last year, Mr. Rudloff accepts that, with competition intensifying and diversifying, its market share is likely to fall below 50 per cent at some point, although it aims to stay market leader.

As it battles for business, the consortium is aware that the near future may bring adjustments to its line-up of 50 shareholders as a result of the long-drawn-out restructuring of the European aerospace industry, which finally appears to be gathering steam.

The French government announced in July it was to merge Aerospatiale, ArianeSpace's second-biggest shareholder behind the Centre National d'Etudes Spatiales, with the defence interests of Lagardère, the private sector defence and publishing group, whose assets include a 51 per cent holding in Matra Marconi Space, another ArianeSpace shareholder. Aerospatiale's German and Spanish Airbus partners, Daimler-Benz Aerospace and Cassa, also have ArianeSpace shareholdings.

David Owen

## PROFILE Boeing's space business

## Pre-eminent power with an eye for innovations

Later this year, a rocket will blast off from a converted oil platform in the Pacific Ocean, about 1,400 miles south-east of Hawaii. The launch will be the result of an innovative partnership between Boeing, the world's biggest maker of military and commercial aircraft, and a group of European companies, including some from the former Soviet bloc.

The venture, called Sea Launch, is only one of the space activities in which Boeing is involved. By taking over McDonnell Douglas and parts of Rockwell International in 1996, Boeing has become a pre-eminent power in the space business. Its activities range from Sea Launch to a joint venture with Microsoft's Bill Gates to

build an "internet in the sky". Boeing is now NASA's single biggest contractor and the leading contractor to build the International Space Station.

The International Space Station, scheduled for completion in 2003, will be a huge, permanent orbiting laboratory for scientific research. Described by its champions as "the largest peacetime co-operative scientific programme in history", the station is being built by companies from Europe, the US, Japan, Canada, Russia and Brazil.

Boeing is involved in a range of other space activities. They include: Sea Launch: Boeing has a 40 per cent stake in Sea Launch and Kvaerner, the Norwegian shipbuilder, has 20 per cent. The rest of the

venture is owned by RSC-Energiya of Russia, which has 25 per cent, and KB Yuzhnoye/PO Yuzhmash, of the Ukraine, which has the remaining 15 per cent.

The venture has its headquarters in Long Beach, California - selected for its proximity to the region's satellite manufacturers. Long Beach also hosts the docking facilities for the vessels which will be used for the ocean-based launches.

There are two vessels. The first is an assembly and command ship, built at the Govan shipyard in Glasgow. It has accommodation, recreation, medical and dining facilities for 240 staff and customers. It also hosts the mission control centre which will supervise the

launches. These will take place from the second vessel, a self-propelled converted oil platform. Measuring 496ft by 220ft, the platform has a hangar in which the launch vehicle will be transported to the Pacific Ocean launch site, along the equator.

Boeing acquired the Delta rocket business when it bought McDonnell Douglas. Delta is a programme as old as the US space industry itself. The Delta rocket, which was first used by NASA in 1960, was based on a US Air Force intermediate-range ballistic missile, the Thor.

Until the early 1980s, Delta was NASA's workhorse. In 1984, however, McDonnell Douglas decided to shut the Delta production line,

following the US government's decision that all satellites should be launched using the Space Shuttle. In 1996, however, the explosion of the Space Shuttle Challenger resulted in President Reagan reversing this policy. Delta was back in business.

With the end of the cold war, and the fall in military budgets, Delta had to begin shifting its emphasis from military to commercial space activities, which were dominated by competitors such as ArianeSpace, the European consortium.

Boeing has developed Delta III, a new rocket, but its first launch failed last month. Delta III is the first of a new generation of rockets aimed at competing with ArianeSpace. It has twice the carrying capacity

of its predecessor, Delta II. The company hopes the new rocket will help it achieve a substantial shift from defence to civil business.

Gale Schluter, vice-president of Boeing's expendable launch systems division, says: "Ten years ago, our business mix was 75 per cent department of defence, 20 per cent NASA and 5 per cent commercial. In the early 2000s, our Delta satellite mix will be 20 per cent military."

Teledesic: This is a project which brings together some of the principal figures in international communications and finance. Launched last year by Bill Gates and Craig McCaw, the telecommunications entrepreneur, Teledesic has

since attracted Boeing, Motorola, the US electronics company, and Prince Alwaleed bin Talsi, the Saudi international investor.

Teledesic's aim is to provide affordable access to telecoms, videoconferencing, interactive media and the internet to people who have until now not been able to afford them. Telecoms services in much of the world are based on old-fashioned analogue copper networks. Governments and telecoms companies in many of these countries are unlikely to have the money to upgrade these to digital services.

This, say the Teledesic partners, is where they come in. By launching hundreds of low orbit

satellites, they will be able to offer internet access and many other forms of communication around the world.

"Increasingly, institutions and individuals are using broadband connections for internet access, computer networking and telecommuting," the Teledesic partners say.

"But step out of the cities, and these fibre-like telecommunications services become unavailable at any price. Despite the vast promises of the information superhighway, these services are simply unavailable to most of the world's citizens."

Boeing's role will be to design, build and launch the network.

Michael Skapinker

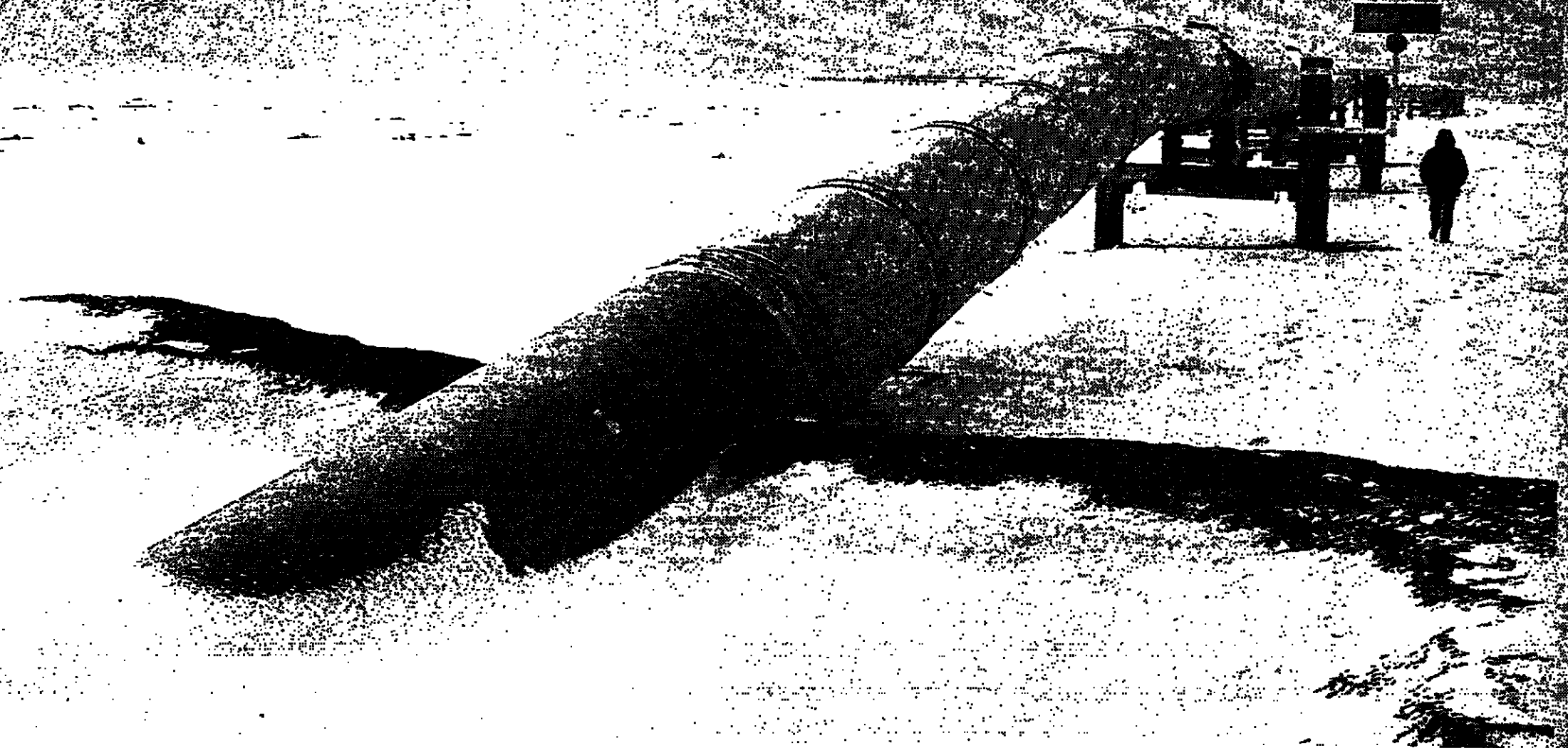


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FINANCIAL TIMES THURSDAY SEPTEMBER 3 1998

XV

**"THE PIPELINE COULD ONLY BE REACHED VIA SNOWMOBILE.  
THE OFFICE COULD ONLY BE REACHED VIA INMARSAT."**



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## 16 AEROSPACE Space/Farnborough

FARNBOROUGH AIR SHOW • by Michael Donne

## All set to break records

Recent decisions have confirmed Farnborough's importance in world aerospace

This year's Farnborough International air show (F198), run by the Society of British Aerospace Companies (SBAC) from September 7-13, is already set to be the biggest yet, with exhibition space up

10 per cent and sold out long ago, more than 1,000 companies participating and more on the waiting list, and exhibiting countries up from 31 to 40.

In business terms it is hoped the show will be the best yet, beating the \$2bn in orders announced at the 1996 show. Attendances may top the 1996 record of 280,000 (130,000 trade and 150,000 public).

The Farnborough area has been synonymous with aero-

nautical activity for more than a century, since a balloon section of the Royal Engineers was formed close by at Aldershot in 1890, followed a few years later by a Balloon Factory and School in Farnborough itself (on the site of what eventually became the Royal Aircraft Establishment-Defence Research Agency).

Early this century, construction by the Army of man-carrying kites and then small airships was under-

taken there, followed by powered aircraft. The legendary American aviator Samuel Cody, Chief Kite Instructor to the British Army, built his own powered aircraft and flew it on October 16, 1908, on Laffan's Plain, eventually also winning the War Office's military aeroplane trials there in 1912. He was killed in an air crash on Laffan's Plain on August 7, 1913.

The SBAC's own direct association with Farnborough now covers half a century, its first show there being held in 1948.

At this year's show, the SBAC will be placing great emphasis on "Youth in Aerospace" to improve the industry's image in a competitive recruitment marketplace. It will also be highlighting "Aerospace Supporting the Community", a sustained campaign to raise the profile and awareness of the benefits of the industry to the nation.

UK aerospace industry turnover in 1997, with 121,000 employees, was just over £15bn, with 75 per cent exported, and the industry consistently contributes more than £2bn a year to the balance of payments.

There are now well over 1,000 air displays or air shows held in various parts of the world every year. Some are simple one-day flying displays with no significant trade value other than to thrill crowds and perhaps make some money from visitors. Others are serious trade promotions, designed not only to demonstrate individual countries' aerospace achievements to their own populations but also to stim-



Bombardier's new Global Express (centre) and Learjet 45 business jets and the Q400 70-seat regional aircraft: three of the eight Bombardier aircraft scheduled to go on show at Farnborough this year. Global Express, developed with international partners, and with high UK content, is a leading contender as the platform for the UK Ministry of Defence Airborne Stand-off Radar (Astor) programme. Short Brothers, the Belfast-based aerospace company, play a big role in the design and manufacture of Bombardier aircraft.

ulate overseas interest in what those countries have to offer. At the highest level, they are important multinational competitive aerospace arenas in their own right.

Farnborough and the Paris Salon de L'Aeronautique at Le Bourget have achieved the highest level, in fierce rivalry but held in alternate years by mutual agreement so as not to clash with each other, with neither accepting the other's claim to be the biggest and best.

Next are the Singapore and Dubai international air shows, also held in alternate years (in February and November respectively), dominating the respective

regions they represent - Asia-Pacific and the Middle East - and of increasing importance, but not yet in the Farnborough-Paris league.

Two developments in the recent past have served to confirm Farnborough's importance in world aerospace and to secure its future. The first is the decision to change the date of the show. This year's will be the last to be held in September; July 24-30 will be the new dates for the year 2000. This move has been dictated by customer pressures, primarily from the US, but also from continental Europe.

Analysis of customers' comments revealed that a mid-summer date was preferable to September, partly to get it over before the traditional August holiday season, partly because of political influences in the US (September sees the start of intensive political activity in the run-up to elections), and partly because in July there are longer hours of daylight and (hopefully) better weather. Furthermore, other

events in the UK around that time may help to attract foreign visitors.

The second development has been the long-awaited confirmation of Farnborough as the venue for SBAC shows into the new millennium. It had been feared that following the decision by the Ministry of Defence to relinquish its own use of the Farnborough airfield, and move its Defence Research Agency and other activities elsewhere, the airfield might be closed altogether. But after much discussion, it was confirmed in October 1997, that the TAG group (Techniques d'Avant-Garde) had been selected by MoD as the new operator of the airfield.

TAG's aim is to invest £25m in the airfield, to turn it into an important dedicated business aviation centre for London, now urgently needed especially as pressures of air traffic growth are tending to squeeze business aircraft operations out of the big airports such as Heathrow and Gatwick.

The SBAC, which over the years has made an invest-

ment of £30m in the facilities for its biennial show, has been confirmed as a permanent occupier of those facilities into the new millennium.

TAG's own plans for the everyday use of the airfield are still subject to the outcome of a public inquiry being conducted by the local Rushmoor Council. The aim is to find a suitable compromise between the needs of TAG as the airfield operator, the need to replace the income lost to the locality caused by the departure of the MoD, and the continuing environmental concerns of local residents.

There are presently about 13,000 aircraft movements a year at the airfield, but TAG would like to see about double that number to make its plans effective, with an "aircraft noise contour" system introduced rather than a specific ceiling on aircraft numbers. Even so, only modern, quiet aircraft would be allowed to use the airfield. The outcome of the inquiry is expected in about the middle of next year.



Farnborough 96 attracted a record total of 280,000 visitors: 130,000 trade and 150,000 public

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## US technical input sparks controversy

Much commercial interest rides on whether the US decides to limit launch approvals

Just as China's aerospace business was emerging impressively from the cloud of several satellite launch failures in 1995 and 1996, a storm of controversy over whether US companies transferred sensitive technical information to the country's space programme has blown up.

A US congressional investigation into possible improper leaks of rocketry expertise to the Chinese by Hughes, a subsidiary of General Motors, and Loral Space and Communications, a US satellite manufacturer, has the potential to delay and disrupt demand for Chinese launches from the US, analysts said.

Executives from both Hughes and Loral deny any improper transfers to the Chinese, but sharp criticism by some influential figures in Washington of the US approval process for Chinese launches threatens to disrupt business.

Trent Lott, the senate republican leader, said in July that the Chinese military benefited from the launches of US commercial satellites. The Republicans have focused their criticism on the Clinton administration's decision in 1995 to move the primary authority for licensing launches to the Commerce Department from the State Department. Mr Lott said that the Commerce Department's export controls were "wholly inadequate" to prevent transfers of sensitive technologies.

Much commercial interest is riding on whether the US decides to limit approvals for Chinese launches. China's launching centre in Xichang, in the south-western province of Sichuan, offers steep discounts compared to competitors in Europe and the US.

Hughes, for one, has signed a long-term contract with China Great Wall Industry Corp, the state-run company that handles commercial launch contracts, to

put into orbit at least five satellites before 2006, with an option for five more.

Insurance costs have dropped significantly as China has regained a reputation for reliability after several failures. In January 1995, a Long March 2E rocket blew up shortly after blast off. In February 1996, the 3B, carrying the Intelsat 708 satellite, crashed. And in August of the same year, a Long March 3 rocket failed to put its Chinastat-7 into proper orbit.

But in August 1997, China used the Long March 3B to put into orbit a communications satellite owned and operated by the Mabuhay consortium, led by the Philippine Long Distance Telephone company. The reported launch cost of \$340m was said to be about half the price tag for a US or European launch, industry executives said.

And in July this year, China launched its first European-made satellite, SinoSat-1, manufactured by Alcatel Space of France, on a Long March 3B rocket. Zhang Xinxia, president of the China Great Wall Industry Corporation, said that the launch demonstrated the wide prospects for Sino-European co-operation.

It is a fact not lost on US satellite companies that any imposition of new limits on Chinese launches would cede competitive advantage to European and other competitors. For their part, the Chinese are anxious to avoid any drop in US demand. A senior Chinese aerospace official offered the following reassurance: "China's involvement in the international aerospace service market is a purely commercial activity. We would not use this as a means to obtain foreign technology."

Since its first commercial launch of a foreign satellite in 1990, China has put 18 into orbit, according to official statistics. The government now has ambitious plans to boost its share of the international launch market from less than 10 per cent currently, and to participate more fully in other aspects of a 21st century space race, officials said.

The Chinese Academy of

Space Technology (CAST) announced plans this year to develop indigenous high capacity satellites for mobile and direct broadcast communications starting with the Dongfang Hong 4 series. It is also planning a range of new environmental, ocean monitoring and remote sensing satellites called Ziyuan.

Feasibility studies are being conducted for lunar and Mars probes. "China will actively participate in deep space exploration during the 21st century and Chinese scientists are expanding in-depth research concerning various scientific objectives," said Yuan Jiajun, vice-president of CAST.

Co-operation with Russia has begun in preparation for manned and unmanned flights to the moon and beyond. A group of Chinese doctors attended the Yuri Gagarin Cosmonaut Training Centre near Moscow, as part of a \$1m contract with Russia to help transfer space-related expertise.

China plans to use an upgraded version of its Long March 2E rocket to launch its manned flight mission and to manufacture its own manned craft. However, it may yet buy more equipment from Russia such as manned spacecraft docking units, life support units and other items. Russia is also assisting in the development of a heavy lift booster which could place 20,000kg into low earth orbit, sufficient to launch the component parts of a space station.

Officials declined to say how much China had earmarked for investment in the space effort, but one said: "The future of China's aerospace industry is glorious."

The first step, between 2000 and 2010 would include missions to map the topography of the moon, explore its internal structure, establish a base for installing instruments, conducting scientific experiments and developing human life support and energy production systems.

The second phase, between 2011 and 2030, could see the establishment of a manned lunar base. China is keen for international co-operation to achieve these aims, officials said.